

small air forces observer

vol. 27 no. 4 (112)
April 2005

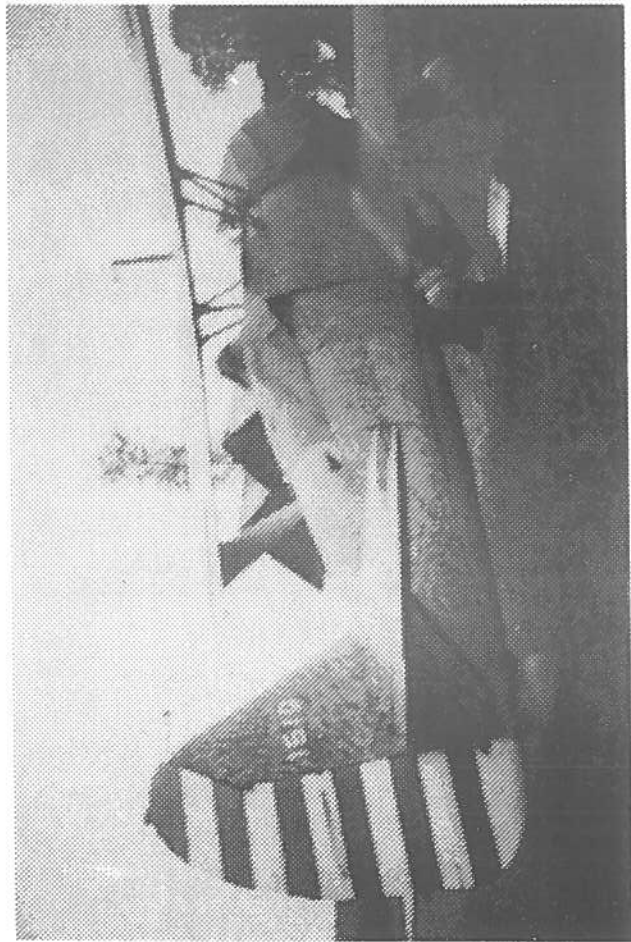
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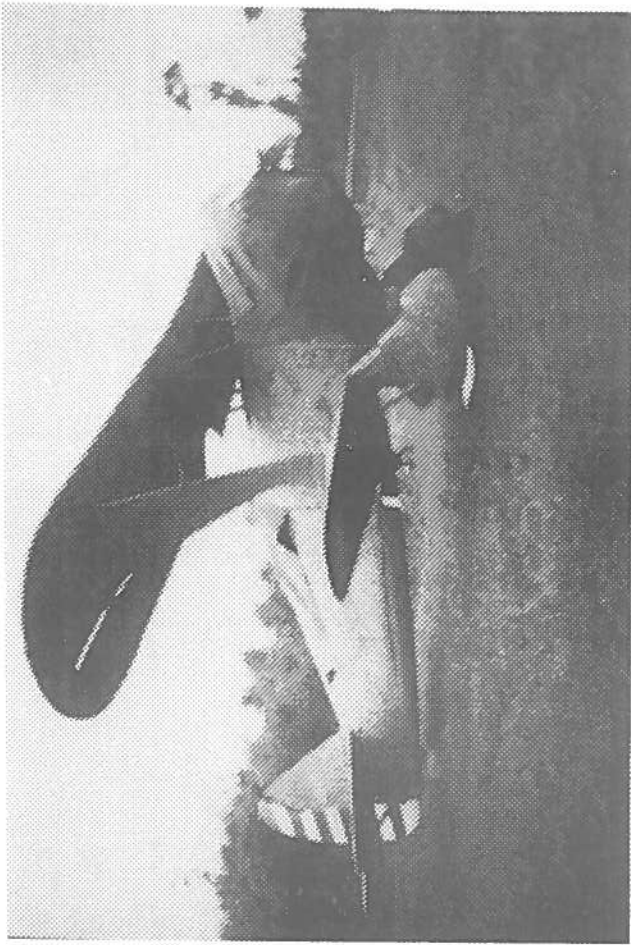
Dutch Air Arms – May 1940 (Part 3)
Hellenic Gladiators in Combat
Liverpool Air Corps (Part 2)

vol. 27 no. 4 (112)

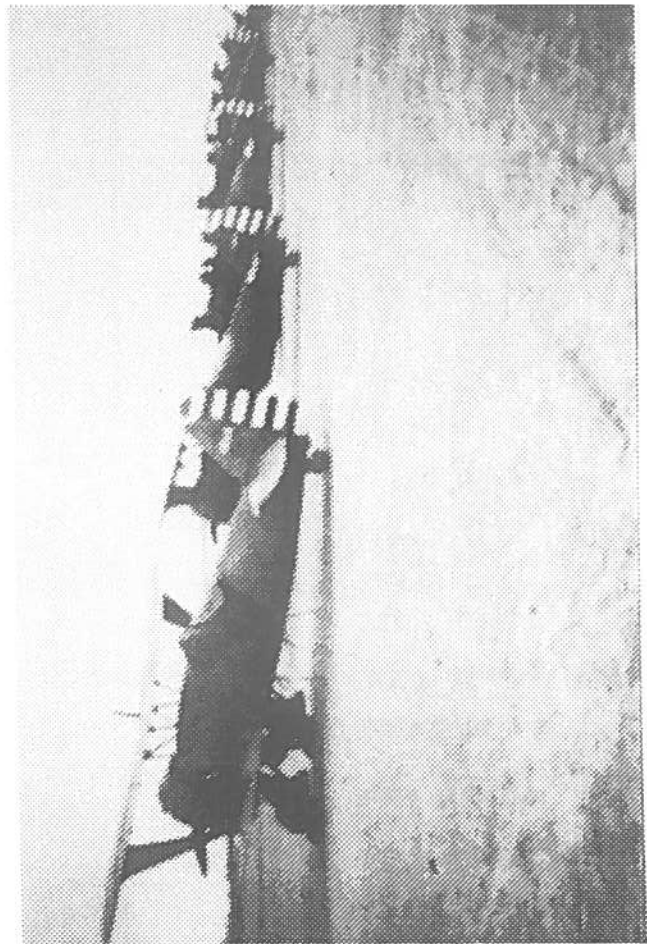
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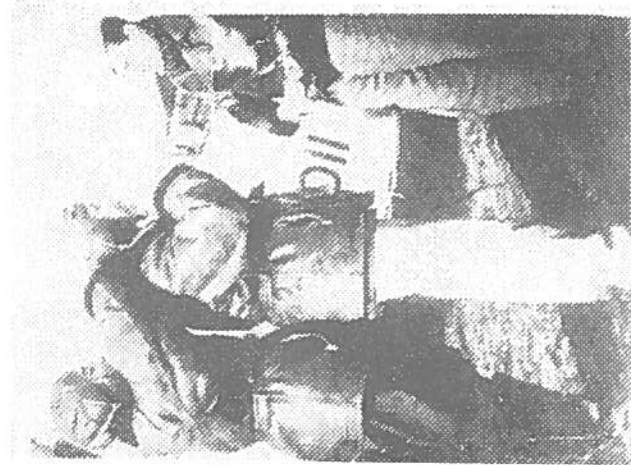
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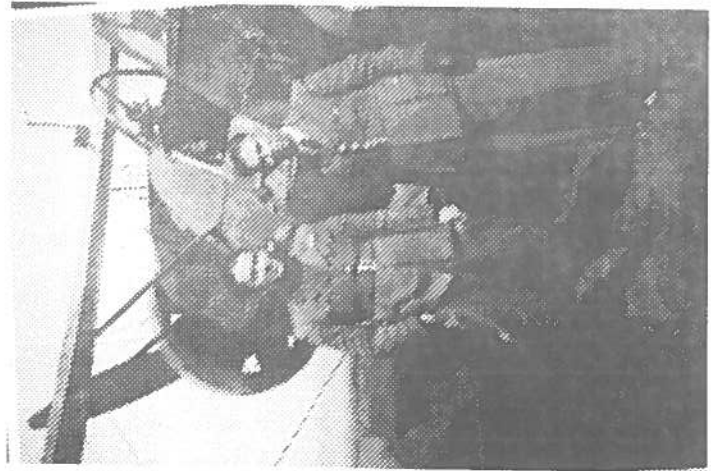
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SMALL AIR FORCES OBSERVER

The Journal of the Small Air Forces Clearing House

E-Mail: saf@redshift.com

CONTENTS

Abstracts	112
Hellenic Gladiators (Napier)	114
Chinese Hs 123 (Höfling)	123
Meidagen 1940 Part 3 (Dildy)	129
Liverpool Air Force	137
Book (Hungarian MiG-15, NEIAF P-51, Paraguay Air Lines, In Spanish Skies)	138
Kits (Ripon)	140
Decals (Irish Air Corp, Japanese SeaKing)	141
Letters (Olausson, Andersson, Höfling, Wawrzynski, Willadsen)	142
Web	142

SAFO EDITORIAL POLICY: The purpose of the SAFCH is to "promote interest in the history and modeling of the aircraft of the smaller countries". In support of this goal, the SAFCH encourages international cooperation in researching aviation history, both military and civil, from all periods of time, and for all the smaller countries. In return for this support, members are asked to submit occasional progress reports for publication in the SAFO. While the final results should appear in the most prestigious publication possible, it is requested that the SAFCH be mentioned (with address) in the article and that SAFO be afforded the opportunity of reprinting the material. Article published in SAFO can be reprinted provided permission of the author is obtained and the SAFO is identified in the reprint.

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drawn on a bank with a subsidiary in the US made payable to "Jim Sanders". New subscriptions begin with the next issue published after payment is received; if you desire otherwise, please specify which issues are desired. Send remittance to Jim Sanders, 27965 Berwick Dr., Carmel, CA 93923 USA.

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TRANSLATION SERVICE: The following people have offered their services in translating articles for publication in SAFO: Inigo Artamendi (Spanish). Igor Gordelanov (Russian, Ukrainian, Byelorussian, Bulgarian, Polish, & Czech). Yoshihiro Aoyama (Japanese). If you need help translating material for a SAFO article, contact the editorial office and I'll give the address of an appropriate translator.

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SAFCH WEB SITE: See SAFO photos in color and chat with members at www.bartoli.com/saf

EDITORIAL COMMENTS: I recently received the following e-mail from a member in Europe: "I got a spam mail from somebody, who most likely got my e-mail address off your SAFCH Newsletter. Perhaps you can remind our Eastern European friends that this is bad form." I thought the Newsletter was a good way to keep the members informed between SAFOs. However, I now see it can be abused. (The originator of the spam was not a SAFCH member.) Please do not forward foreword spam using the Newsletter addresses. If you have something for the members, send it to me and I'll put it in SAFO for all members to read. On a similar subject: If you, as authors, artists, or letter writers, do not want your e-mail address or snail-mail address printed with your contribution, please let me know at the time of your submittal.

SALES SERVICE: Because of the length of the major articles in this issue, it was necessary to omit the usual Sales List. Orders will still be taken using previously published Lists. However, several new items, reviewed in this issue, needed to be mentioned: Broplan's Blackburn Ripon (\$25.00), Max Decals Irish Air Corp Update (\$10.00), and Sweet Decals USN/USMC and Japanese SkyKings (\$10.00 each).

-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-wants&disposals-

SAFCH SHELF CLEARANCE SALE: 1/72-scale injection-molded Polish sailplanes. Set of six (Sep, Bocian, Gil, Mucha, Zifir, & Jantar) \$18.00 plus \$2.00 postage. Individual sailplanes (Bocian, Gil, and Mucha) \$3.00 each plus \$2.00 per order. These are excellent little kits, ideal for an evening of building fun - minimum cockpit detail and no propellers, engines, or landing gear to detail. Ideal for the young modeler in the family or the jaded experienced modeler.

"Wanted: (1) INSIGNIA Magazine - December 1996 (Winter #4). This issue contained a series of three articles on Polish Aircraft and Markings. (2) AERONAUTICS Issue No. 39. This issue contained Part III of the Supercharger Lecture/Article by Sanford Moss. (Copies of either of these articles sets would also be acceptable.) (3) JAPANESE AIRCRAFT INTERIORS by Robert Mikes." David Zwolak (SAFCH #781), 7412 Shisler St., Philadelphia, PA 19111, USA. E-mail: LDSoar@mman.com

"Wanted: Books of American Publishing House 'Ginter Books'. In exchange I offer literature, b&w archive photos and model kits devoted to Russian/Soviet aviation." Victor Kulikov, 129515 Moscow, PO Box 59, Russia. E-mail: nieuport@rol.ru
"We need help continuing our Latin American decals series. (Ed: See 'decals' in this issue.) Needed

are the Delta decals for the 'Soccer War'. Also needed are photos of Salvador Dassault Ouragan and Super Mystere. Also need are photos of Honduras Bell P-63 Kingcobra, Cessna A-37B (showing the markings on the wing), Dassault Super Mystere (showing markings on the wings), and Lockheed T-33 and 188A Electra turboprop."

All Scale-Models Works, c/o Ron Ferreyra (SAFCH #482), 757 Emory St. #106, Imperial Beach, CA 91932, USA.

"I am looking for a copy of AJ Press's Tankpower Series #9 *Japanese Armor, Vol. 1*. Any member with a copy for sale or a good lead on where to find a copy, please contact Randy at nofives15@hotmail.com, or at the snail mail address below". Randy Witt (SAFCH #1460), 337 Harbor Dr., Bumpus Mills, TN 37028, USA.

"I'm looking for the Leading Edge decal set 72-072 featuring Canadian H-21 and H-34 helicopters. Even parts of this sheet might be helpful." Nils Treichel (SAFCH #1467), Gustav Adolf Str. 16, 27404 Zeven, Germany. E-mail: nrtreichel@vr-web.de

"Seeking information, including profiles, photos, and articles, regarding Antonov An-12 and An-22 transport aircraft used by Vietnam to transport troops

from Cambodian border to Chinese border, 1979. Thank you in advance for your cooperation." Charles Euripides (SAFCH #1286), 4508 Willow Croft Court, Charlotte, NC 28226, USA. E-mail: geuripides@yahoo.com.

"As a professional illustrator for many years, I have piled on my shelves hundreds of original plates on many subjects. Needing to clear a part of it, I am now proposing for sale the complete series of cutaway paint for the original collection 'Construire le Blériot' for Hachette Publishing (France). This collection had been published in English under the title: "Build the Red Baron's Fighter Plane". The complete series of 79 plates. A short series of 4 plates produced for the cancelled project of a second part of the collection, titled 'Construire le Spirit of St. Louis' is added to it for a total of 83 plates. All the plates are acrylic oil painted and India inked, on A3 size Bristol cards, stamped and signed at the back, and the conditions are from good to excellent. "The sale is open at a starting price of 100,000 Euros and will be closed at the 30th. of March. Passed this date, the plates will be sold at the individual price of 1500 Euros each. The reproduction rights and copyrights can be discussed separately." Hubert Cance (SAFCH #809), 56, Bd. E. Lintilhac, 15000 Aurillac, France. hubert.cance@wanadoo.fr. <http://unicorn.gallery.monsite.wanadoo.fr>.

AUSTRIA

OFH NACHRICHTEN (Oesterrische Flugzeug Historiker, Pfenninggeld 18/214, A-1160 Wien.) 4/04 (40 pages) "Historische Luftfahrzeuge in Österreich: The Flying Bulls" 10 pages on warbirds in Austria including 13 photos and 6 color side-view drawings (F4U-4, T-28B, G-44 Widgeon, Alpha Jet, B-25J, & DC-6B). "Ludtsieg' gegen ein U-Boot" 4 pages including one photo and one side-view drawing (Lohner Flugboot L135 (UFA)). "Messerschmitt Me 262: Geplante Produktion 1 Österreich" 6 pages including 2 photos. "Ein polnisches Flugzeug mit österreichischem Motor" 2 pages including 3 photos (Bartel BM-5a).

BELGIUM

KIT (IPMS Belgium, c/o Michel Willot, dreve de Champagne 14, B-1190 Bruxelles; International Postal Money Order for \$30 for 4 issues. 133 1/2004 (36 pages) "Grumman Tracker" 6 pages including 22 photos of the model (1/72-scale Hasegawa) under construction and completed and 11 photos of aircraft. "Les Mustang Philippins" 4 pages including 4 photos and 2 pages of multi-view drawings. "Le moteur Oberursel UR.II" 3 pages including 8 photos (one in color) of a museum engine. "Les peintures 'metalizer'" 6 pages including 4 photos of models in 'natural metal' finishes. "Le Bolkhovitinov 'S'" 2 pages including 6 photos of the 1/72-scale R.V. Resin model. 134 2/2004 (52 pages) [Ed: Beginning with this issue, the number of pages is increased to allow for all text to be presented in bilingual form (French & German).] "Antarctic Otter" one page with two color photos. "F-104G FX99: 31 'Tiger' Sqn" 7 pages including 20 photos of the model (1/48-scale Hasegawa) and 3 photos of the aircraft. "Musée de l'Air et de l'Espace" 7 pages including 17 photos. "Belgian Avia BH 21: APC Decals 1/72e" 3 pages including 2 photos and a color side-view drawing. 135 3/2004 (52 pages) "Douglas DC-3 Sabena" 5 pages including 9 photos of the model (1/48-scale Monogram) and 7 photos of the aircraft. "Plywood Rendering" 3 pages including 6 photos of models with plywood finishes. "Belgian F-16 Tails: ZOTZ Decals" 2 pages. "McDonnell-Douglas MD900: Rijkswacht-Gendarmerie" 11 pages including 10 photos of the 1/72-scale Classic Plane model and 41 "walk-around" photos of the aircraft. 136 4/2004 (52 pages) "Sabre au Congo" 2 pages including 4 photos of a model and one photo of the aircraft. The remainder of this issue is devoted to museums, The aviation museum covered are: "The Steven F. Udvar-Hazy Center USA" 4 pages including 13 photos. "Le Musée de l'Aviation de Prague (Czech republic)" 5 pages including 14 photos. "Museo del Aire (Spain)" 3 pages including 12 photos.

ENGLAND

THE CATALINA NEWS (Val Thomas, The Catalina Society, Duxford Airfield, Cambs, CB2 3QR, England. One year <156>15. Web Site: www.catalina.org.uk. #58 January 2005 (24 pages) "The Cat is Back" 5 pages on the Society's PBY activities during the year including 7 photos. "Dick Milne's Catalina Quest" 2 pages on visiting Catalinas around the world; includes 2 photos. "World Catalina News" 3 pages including 2 photos of Dutch PBY finished as '16-218'. "Cat Contact Column" 3 pages in the career of Leonard Birchall (RCN) who first spotted the Japanese fleet off Ceylon and spent the rest of the war in Japanese prison camps. He punched out a Japanese guard who was abusing an ill Allied

prisoner, was sentenced to death, but survived to testify against his torturer and see him hanged. "Photographic Reconnaissance of the Cocos Islands" 2 pages on a 28-hour flight out of Ceylon to photograph a possible Japanese seaplane base in the middle of the Indian Ocean.

MUSHROOM MODEL MAGAZINE (Roger Wallsgrove, 36 Ver Road, Redbourn, Herts AL3 7PE, UK. <156>3.95 each.. (North American subscription agent: Wise Owl Publications, 5150 Candlewood St., Suite #1, Lakewood, CA 90712-1900. \$32.00. E-mail: info@wiseowlmagazines.com.

9/2 (28 pages) "Modeling the Hellenic Gladiator" one page including 3 photos. "Accurate Yaks" 4 pages on modeling the Yak-3/7/9 family including 14 photos of Polish and Yugoslav Yaks. Review of small-air-force interest: Special Honny 1/72-scale Pucara; and CMR 1/72-scale Martinsyde Buzzard.

SWEDISH AIRFORCE SIG (Harold Rowell, 80 Cambridge Ave., Marton, Middlesbrough, Cleveland, TS7 8EG, England. E-mail: pauline.rowell@ntlworld.com. Subscription <156>4.00 UK, <156>6.00 Europe, <156>9.00 USA.

#50 2004 (8 pages) "Aeroplast 350 Draken 1:72" 2-page kit review. "Swedish Air Force Airshow - 29 August 2004" 2 pages. Color photos: Swedish Viggan (2).

FINLAND

IPMS-MALLARI (IPMS Finland, PL 798, 00101 Helsinki 10; 6 issues \$20.00, no check accepted due to the high redemption costs). Now with captions in English. #156 5/2004 (24 pages) "Kamov Ka-52 Alligator" one-page review of the 1/72-scale Italeri kit including 3 photos. "MiG-21PFM Phantom Killer" 2-page review of the 1/72-scale Zvezda kit including 4 photos - 2 of the cockpit interior in color.

SUOMEN ILMAILUHISTORIALLINEN

LEHTI (Pentti Manninen, Jakomaentie 8 b C 300, 00770 Helsinki. Subscription: Europe 26 euro, elsewhere 32 euro or 42 USD. Payment by International Postal Order or in cash notes; no cheques accepted because of high redemption rates). Each issue includes a 2-page English summary.

4/2004 (24 pages) "Marti Pukkila and his flying machines" 3 pages including 3 photos (Klemm L.25A & Saaski). "History of T-LLv 35 (Part 2)" 4 pages including 3 photos (VL Pyry - one a target plane with large white crosses on the wings). "Night Fighter Operations in Finland (part 9)" including 6 photos (Bf 109G). "Performance of Piston Engine Fighters (Part 3)" 4 pages with one photo (Bf 109G). "Gloster Gladiator as a Reconnaissance Aircraft during the Winter War" 3 pages including 3 photos and a full-page 1/72-scale 4-view drawing. "Last Flight of Junkers Ju 188 on 14 April 1944" 4 pages on the accidental shooting down of a German Ju 188 by Finnish Bf 109 including 3 photos.

[Editor's Note: Pentti explains the disproportionate increase in the USD cost as "due to stalling and spiraling down of USD - sorry folks in the USA".]

FRANCE

AIR MAGAZINE, TMA, 75 rue Claude Decaen, 75012 Paris, France. Six issues a year. 35 euros in France, 41 euros in Europe, and 50 euros for the

rest of the world. Payment by Visa, Eurocard, Mastercard. E-mail: airmagazine@wanadoo.fr.

#23 Decembre/Janvier 2005 (64 pages) "Le Hs 123 en Chine" 5 pages including 13 photos and a color 3-view drawing [Ed: the author of this article also submitted it for publication in SAFO, and we are pleased to be able to present an English translation elsewhere in this issue, however, with less illustrations.] "L'Ae.M.O., de la F.M.A." 12 pages including 27 photos, 8 color side-view drawings, and a table of individual aircraft histories. "Les Heinkel 115 suédois" 14 pages 22 photos, 2 color paintings, 2 color 3-view drawings, 8 color side-view drawings, and table of individual aircraft histories. "Les Avia 122-422 d'acrobatie" 18 pages including 54 photos, 3 color 3-view drawings (B-122 'OK-AVE' & 'OK-AME' and B-422 'OK-AVC'), and 3 color side-view drawings of B-122 [Czechoslovak AF, Slovak AF (early insignia), & Slovak AF (late insignia)]. "Les sections de chasse polonaises improvisées en France en 1940" 5 pages including 29 photos (mostly personnel). "Maquettes & Livres" 4 pages off reviews (17 kits, 9 decals, and 14 books) all with color illustrations.

[Ed: AirMagazine has evolved into the best non-English magazine for the small-air-force enthusiast. If you're serious about this subject, you should give serious consideration to subscribing.]

AVIONS: Toute l'Aéronautique et son Histoire (Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. 420F for 12 issues).

#141 Decembre 2004 (62 pages) "Stanislaw Skalski: Le plus grand as polonais de la Seconde Guerre Mondiale" 16 pages including 34 photos, color cover painting, 8 color side-view drawings [P-11c, Spitfire (5), & Mustang (2)], a full-page color side- and top view drawing (Mustang), and victory list. "A-Go" Sakusen (Le tir aux pigeons des Mariannes)" 90 pages including 22 photos and 3 color side-view drawings (Nakajima N5M2-N). "Lucio Biagini: la mort au-dessus de Turin" 7 pages including 16 photos, a color side-view drawings (Fiat G.55), and victory list. "Vikings sur la Méditerranée" 6 pages including 11 photos and a color 3-view drawing. "SM.73 Tchechoslovaques" 3 pages with 8 photos. "Quarante Ans de Dissuasion pour les Forces Aériennes Stratégiques Françaises" 16 pages including 40 photos.

#142 Janvier 2005 (62 pages) CG II/7 en 1939-1940" 15 pages including 27 photos and 6 color side-view drawings [MS.4-6 (5) & D.520 (1)]. "Carnets d'Afrique" 10 pages including 24 photos and 3 color side-view drawings (Ju 87). "GTS, les Catalina de Taganrog" 12 pages on Soviet Catalinas including 20 photos, 3 pages of 1/100-scale multi-view drawings, and 6 color side-view drawings. "Les Arado Ar 196 en 1943" 13 pages including 19 photos and 3 color side-view drawings. "La chasse terrestre de la Marine impériale japonaise (7)" 7 pages including 21 photos.

@143 Février 2005 (62 pages) "Le Match: Bloch 152/Messerschmitt 109" 18 pages including 24 photos (mostly Bloch 152), cover color painting, three full-page 3-view color drawings (all Bloch 152), and 16 color side-view drawings (all Bloch 153). "Les Catalina Soviétiques au Combat" 8 pages including 15 photos and 3 color side-view drawings. "Carnets d'Afrique" 12 pages including 34 photos and 6 color side-view drawings (Ju 87 R-2/trop). "Du bombardement à la reconnaissance" 5 pages including 15 photos (Voisins and Farmans). "GC II/7 en 1940" 13 pages including 19 photos,

victory list, full-page color 3-view drawing (D.520), and 4 color side-view drawings (MS.406 (2) and D.520 (2)).

GERMANY

FLIEGER REVUE EXTRA (Verlag Fliegerrevue, Herrn Detlef Billig, Oranienstrasse 48, D-13469 Berlin. 4 issues per year, \$66 surface. Payment by check drawn on German bank)

#7 (132 pages) "Fliegende Landwirte: Agrarflug in der DDE" 23 pages on agricultural aircraft in East Germany including 73 photos and 5 color side-view drawings (L-60 Brigadyr, An-2, Z-37, PZL106, & PZL M-18). "Spionage über der Ostsee: Schweden im Kalten Krieg" 14 pages on Swedish aircraft shot down during the Cold War including 19 photos, two color side-view drawings [Ju 86K (B3) & DC-3/C-47 (Tp79)], two maps and RSwAF Order of Battle 1952. "Airbus - eine Erfolgsgeschichte 35 Jahre Airlinerbau in Europa" 34 pages including 92 photos and 9 color side-view drawings. "1945: Kampf um China: Die sowjetische Luftoffensive" 18 pages including 24 photos, 2 maps, and 7 color side-view drawings [PBN-1, Il-2m3, Il-4T, La-7, Be-4 (KOR-2), Tu-2T, & MBR-2WU]. "Der türkische Flugzeugbau: Vom Hangeglieder zur Falcon" 20 pages on the aircraft designed and license built in Turkey aviation industry including 59 photos and 4 color side-view drawings [THK-5A (Danish), THK-15 (Jordan), PZL P-24, & F-16]. There are photos and technical specification of some little-known aircraft such as the Vecihi, ND, and TKH series of designs as well as more well-known types as the Junker A-20, PZL-24, Curtiss Fledgling & Hawk II, F-4, NF-5, T-37, C-130, SF-260, and F-16.

MITTEILUNGEN (IPMS Germany, Bergengruenstrasse 5-7, D-1000 Berlin 38; 12 issues DM 60.00 Europe, DM 65.00 USA, DM 70.00 Japan, DM 75.00 Australia). 4/2004 (40 pages) Nothing of small-air-force interest.

ITALY

AERO FAN Storia di Italiane. English summary. (Giorgio Apostolo Editore, Via Ampere 49, 20131 Milano, Italy.) 4 issues L 80,000. #90 Lug.-Sett. 2004 (68 pages) "A Pilot for Balbo" 13 pages including 33 photos [Hanriot HD, Spad S.VII, Fiat CR.20, Ro.1, S.75, & S.79]. "The Four-Seat Saiman C.4" 5 pages including 13 photos, "The Last Trimotor" 6 pages including 9 photos and a 2-page scale 3-view drawing (SIAI S.90). "A Base Called 'Giginia'" 4 pages including 7 photos (Fiat G.50). "A Strange Fiat AS.1" 2 pages including one photo. "War Prizes" 11 pages with 32 photos (Macchi C.202 & C.205; Fiat CR.42 & G.50; Caproni Ca.133, Ca.209; & Ca.311; Cant Z.501, and SM S.79). "A 'Renegade' Lightning and Wild Fancy" 4 pages on the true story of the P-38 captured by the Italians compared to the fantasy published by 'Air Combat'. "Updated Bf 109 Profiles" 2 pages with 3 color side-view drawings of Italian 109s.

#91 Ott.-Dic. 2004 (68 pages) "Finally the '202'" 5 pages of a pilot's story of flying the C.202 in North Africa including 7 photos. "Diving Tandem" the 7-page story of the Breda 201 including 7 photos and a multi-view scale drawing. "Magrini's Race" 5 pages on the race of a Hanriot Hd1 biplane against a Bugatti 35C race car. The airplane won. "A Floating Seaplane Base" 9 pages including 9 photos and 3 pages of drawings. "The Final Mission of the 204^a Squadriglia" 13 pages on the use of S.79 torpedo planes against Allied shipping off Sicily including 13 photos. "Italian Warplanes in Allied Hands" 8 pages with 23 photos [MC 202

(2), CR.42 (3), Breda 25 on floats (2), Cant Z.509 (2), Breda 25 Asso (3), Caproni Ca.100 (4), Saiman 200 (4), and Saiman 202 (3)].

JP-4 Mensile di Aeronautica (JP-4, Via XX Settembre 60, 50129 Firenze; L 27.000 Europe, L 30.000 elsewhere).

#12 Dicembre 2004 (100 pages) Color photos: Jordanian F-16 and Czech Gripen '9237'. "Dietro le quinte della PAN" 6 pages including 15 photos of Italian MB-339 and their crew. "Marinefliegergeschwader 2 addio" 2 pages including 5 photos (Tornado). "Recensioni" 2 pages of book reviews including three that should be of interest to SAFO readers: "Furies and Fireflies over Korea", "Lockheed P-38 Lightning in Italian Service 1943-1955", and "Springbok Fighter Victories: SAAF Fighter Operations 1939-1945 (Vol.1, East Africa 1940-1941)". The "Incidenti" section identifies the following lost aircraft by serial/code: Danish F-16BM 'ET-204'; Finnish Hawk 51 'HW-325'; Croatian Air Tractor AT-802AF '891/9A-HOSI'; Polish Mi-2 '3105'; and Bolivian T-34A 'FAB-901' among others not identified by serial/code number.

#1 Gennaio 2005 (100 pages) Color photos: Chinese Su-27, Iraqi Comp Air 755L, & Dutch DC-10. "L'Aviazione Ucraina al CIAF 2004" 2 pages including 6 photos (Ukraine Su-27 & An-74TK and Israeli C-130). "Gli F-16 di Trapani" 4 pages on Italian F-16 including 9 photos. "Immagini dal Nepal" 2 pages with 6 photos (DHC-6, Beech 1900C, Dornier 228, SA316, & Mi-17 Hip). "Nucleo Lato Anfibia" 5 pages and 8 photos of Italian navy helicopters. "Air Museum Planes of Fame" 5 pages including 13 photos.

NETHERLANDS

MODELBOUW IN PLASTIC (IPMS-Nederland, c/o Rene Euhart, Bernadottestraat 133, NL-2131 SP Hoofddorp; erhart@quicknet.nl). 4/2004 (34 pages) "Things under Wings" 12 pages on the pylons fitted to Dutch aircraft to carry air-to-air including 4 photos and 9 pages of very detailed drawings.

SPAIN

REVISTA ESPANOLA DE HISTORIA MILITAR (Carlos Fresno Crespo, Alcaniz Fresno's S.A., C/Cromo 18-20, Poligono Industrial San Cristobal, 47012 Valladolid) 800 Pts.

#53 Noviembre 2004 (58 pages) "Submarinos clase 'Archimede'" 14 pages including 10 photos and a color side-view drawing. "Los Caudron Goeland espanoles" 5 pages including 8 photos and 3 color side-view drawings. "Instrutores Italianos en la Academia de Artilleria (1937-1939)" 9 pages including 10 photos and 4 color side-view drawings.

Poster inserts: Tractor Pesado 4x4 Breda 32; Camion Ligero Autocarro Spa 38R; Camion Mediano 6x4 Krupp L3h163; & Camion Ligero 4x2 Fiat 618C.

Book insert: "Carros de Combate y vehiculos de cadenzas del Ejercito Espanol, Un siglo de historia" (pages 97-112) "Guerra Civil (1936-39)". "El Sistem Tactico de Identificacion" 6 pages including 6 photos and 25 color drawings of markings, "Kleiner Panzerbefehlswagen Sd Kfz 265" 5 pages including 8 photos, a 2-page color 4-view drawings, and a color side-view drawing. "Panzer I Ausf A Lanzallamas" 2 pages including 6 photos and a color front-view drawing. "Panzerkampfwagen I Ausf A ohne Aufbau" one page including 2 photos and a color side-view drawing.

#55/56 Enero/Febrero 2005 (58 pages)

"El Consolidated Catalina del Ejercito del Aire" 6 pages including 10 photos (one on color) and a color side-view drawing.

Poster inserts: Camion Blindado Torras 6; Blindado Mowag Piranha III; Obus de Campana de 149/12 Mod.14; & Canon de Campana de 108/28 Mod.13.

Book insert: "Carros de Combate y vehiculos de cadenzas del Ejercito Espanol, Un siglo de historia" (pages 113-128) "Guerra Civil (1936-39)". "Mittlerer Zugkraftwagen 8 Tn. (Sd. Kfz. 7) KM m 8, m 9 y m11" 4 pages including 6 photos and 2 color side-view drawings. "Leichter Zugkraftwagen 3Tm. (SdKfz 11) HL kl 6" 2 pages including 5 photos and one color side-view drawing. "Carro Trubia LA n° 1 Mod 1936" 2 pages including 3 drawings. "Carro Trubia/Naval" 9 pages including 9 photos and a 2-page 4-view color drawing.

Book insert: "Operaciones Acorazadas de la Segunda Guerra Mundial" (pages 1-20) "Las sovieticos invaden Polonia" 14 pages including 14 photos, 3 maps, 7 color side-view drawings [Samochod pancerny wz.34, 7 TP (2), TK 3 (2)], T-28, & BA-20, and a 2-page 4-view color drawing (T-28). [Ed: other chapters will follow as inserts; the next two chapters are "De Sedan a Abbeville" and "Montcornet. La ultima carga de la caballeria francesa" both scheduled for issue #57.]]

USA

WWI AERO (15 Crescent Rd., Poughkeepsie, NY 12601; 4 issues \$42.00 USA or \$47.00 overseas). #187 Feb 2005 (146 pages) "Cicero Flying Field: Part 2" 19 pages including 37 photos of those magnificent men (and women) and their flying machines. "Spinning a Tail" 8 pages and 8 photos on how the British learned to get into and out of a spin. "The Gallaudet Story: Part 9 1916 Designs (Non-Gallaudet-Drive Types)" 10 pages including 7 pages of scale drawings of four never-built projects. "Korvin-Kroukovsky: Edo Aircraft's Legendary Chief Designer" 6 pages including 2 photos. "More on WWI Aircraft Ammunition" 4 pages. "Albert Ball's Nieuport 17 Fabric" 3 pages. "Drawings" 7 pages (Bleriot XI-2, Martin Aeroyacht, BE-2/2a, Dunne D.8, Roe IV, & de Havilland 1910). "Museums/Organizations" 16 pages including 29 photos. "Models" 15 pages including 41 photos. "Publications" 11 pages with reviews of 6 books and 8 magazines. "Letters" 2 pages. "Christmas Bullet Pt 2" 3 pages including 3 photos.

SKYWAYS (15 Crescent Rd., Poughkeepsie, NY 12601; 4 issues \$42.00 USA or \$47.00 overseas). #73 Jan. 2005 (84 pages) "Strike Force in the Making: US Naval Carrier-Based Attack Aircraft Developments from 1926 to 1940" 12 pages including 24 photos. "The Bennett Aircraft Corporation Model BTC-1 Executive" 10 pages including 15 photos and a scale 3-view drawing. "Saving Time: Ship-Launched Ocean Airmail Services, 1926-1939" 17 pages including 31 photos [He 12, He 58, Ju 46, Do Wal, Do 18, Ha 139A, & Do 26]. "Henry Ford's Flying Wing" 5 pages including 6 photos and a scale 3-view drawing. "Cockpits: Great Lakes BG-1 Dive Bomber" 4 pages including 6 photos. "Details: Great Lakes BG-1 Dive Bomber" 5 pages including 11 photos and a scale 3-view drawing. "ID UNK:(Identification Unknown)" 1 pages including 6 photos. "Models" 3 pages including 7 photos. "Skyways Reviews" 3 pages with 15 reviews of books and magazines.

The Hellenic Gladiators

Sid Napier

[Editor's note: This article first appeared in Mushroom Model Magazine, 9/1. It is reprinted here with the permission of the editor and the author.]

In January 1938 on the airfield at Elefsis, near Athens, in the course of a ceremony attended by Prime Minister Ioannis Metaxas and top ranking officers, Stylianos Sarpakis presented the *Elliniki Vassiliki Aeroporía* (EVA = Hellenic Royal Air Force) with two brand-new Gloster Gladiator Mk I fighters. Sarpakis, a native of Santorini (Thira) with a flourishing business based in Egypt, had privately purchased the two aircraft for £9,200. He had paid the equivalent of another £200 to fit each aircraft with four 7.92-mm Skoda LK 32 (Czech-made Vickers) machine guns, German Telefunken stat 276 AF radios and U.S.-made Gaertner oxygen supply systems compatible with standard EVA equipment.

A few months before, the fighters in the EVA inventory had comprised only a few Gloster Mars VI Nighthawk fighters purchased in 1923, four Avia BH 33E-SHS acquired from Yugoslavia in 1935, and two Avia B.534/IIIs purchased privately and donated the year before by another businessman, G. Koutarelles. However, the EVA high command was not terribly pleased with the donation as the delivery of 36 Polish fighters of a more advanced design, the PZL P.24, had been initiated in May 1937 and would be concluded in 1938. The two Gladiators thus posed complications in terms of maintenance and spares, and an additional two P.24s would have been more welcome.

Nevertheless, due appreciation was shown of the £9,400 gift, the two all-silver Gladiators being given the special codes *Delta Sigma 1* and *Delta Sigma 2* applied in black characters and standing for *Dorea Sarpakis* (Sarpakis Donation). Also, the inscription *Santorini-Thira* was painted in black characters on both sides of the fuselage of *Delta Sigma 1* and *Stylianos Sarpakis* on that of *Delta Sigma 2*.

The presentation ceremony concluded, the two Gladiators were assigned to fighter-trainer service. One subsequently crashed and was written off, but the other was still in service in October 1940. Whether this latter was *Delta Sigma 1* or *Delta Sigma 2* is not known.

On October 28, 1940, the day Italian forces invaded Greece, the surviving Sarpakis Gladiator was apparently either at Megali Mikra or the Fighter Training Centre at virtually next-door Sedes (Thessaloniki), and in the month that followed may well have been used operationally. However, only one sortie flown seems to have been recorded. On November 2, Michel Ledet states, just after 22 Mira had intercepted CANT Z.1007bis bombers in the early afternoon, *Arhisminias* Konstantin Lambropoulos landed his P.24 and immediately took off again in a Gladiator from the Fighter Training Centre to help ensure the defence of Thessaloniki while Fiat CR42s of 363a Squadriglia were still in the area.

The RAF Gladiators in Greece

The next Gladiator fighters to appear in Greece were those of two RAF squadrons. The history of their losses and the damage sustained by various machines, as chronicled by Shores & Cull with Malizia (Shores) and summarized below, helps to cast light on the subsequent transfer of Gladiator fighters to the EVA in Greece.

The first to arrive was 80 Squadron from Amriya, Egypt. Its 'B' Flight arrived at Elefsis on November 17 or 18, 1940, and moved to Trikala next day. 'A' Flight arrived on November 23 and joined 'B' Flight at Trikala. According to Francis Mason, while at Ismaelia in June 1940 80 Squadron had on strength K7892, K7901 - K7909, K7911 - K7916, K7937, (K7973?), K8011, K8012, K8021, K8022, L8010, and L8011. Of these, as Crawford has advised, K7908; K7911, K7912, K7913, K7914, K7915, K8011, K8012, K8021, K8022 and L8010 were subsequently transferred to other units, written off, or posted missing. In August 1940 at Sidi Barrani, again according to Mason with transfers and losses as traced by Crawford, 80 Squadron had on strength K7892, K7910 (shot down, 4 Aug.40), K7916 (crashed 15 Sep.40), K7923, K7937 (K7973!), K8003 (to 141 Flight), K8017, K8021 (to WDCF), K8051 (struck off charge, 1 Nov.40), and L8011.

Al Lumsden & Owen Thetford's list of Mk I Gladiators successively on charge to 80 Squadron from March 1937 to April 1941 agrees with the serials shown by Mason, but also includes K7971 as well as K7937 and K7973.

Mason has K7937 but not K7973 on strength with 80 Squadron in June and August 1940, but subsequently shows the latter as having been transferred to the EVA in December 1940! Since other sources agree that K7973 was transferred, the absence of K7973 in Mason's on-strength lists is obviously a printer's error.

Sometime before mid-November 1940 80 Squadron took on strength Mk IIs which Lumsden & Thetford identify as N5583, N5761, N5763, N5776, N5784, N5785, N5788, N5811, N5812, N5814, N5816, N5819, N5823, N5827, N5832, N5854, N5858, N5859, and N5876. Correlation of the serials listed by Mason and Lumsden & Thetford, and deduction of the serials found by Crawford to have belonged to machines transferred, lost or written off by early November 1940, shows that 80 Squadron must have moved to Greece with the Mk Is K7892, K7923, K7973, and K8017, the Mk II L8011, and 19 'N' series Mk IIs on strength, i.e., a total of 25 Gladiators.

On arriving at Trikala on November 19, 'B' Flight immediately flew an offensive patrol with nine Gladiators during which Plt Off Stuckey was wounded and his machine damaged in a dogfight with Fiat CR 42s and Fiat G.50s.

On November 28, when six Gladiators of 'A' Flight engaged Fiat CR 42s of 365a Squadriglia over Delvinaki, N5812 collided with a Fiat, both pilots being killed, N5816 was "badly shot up", N5854 was "also shot up", and N5788 and "N5786" (N5785?) were "damaged". No further losses or severe damage to 80 Squadron Gladiators are recorded for the period to December 2, when five machines were handed over to the EVA.

On December 4, four Gladiators of 112 Squadron arrived from Egypt and joined 80 Squadron on detachment. On December 19, when 13 Gladiators engaged SM 79s escorted by Fiat CR 42s and G.50s, Plt Off Cooper was mortally wounded when he baled out of N5785 while Sgt Hewett's N5827 was badly damaged but salvaged after a forced landing. Two Gladiators were damaged next day when attacking SM 79s. On December 21, when 10 Gladiators engaged SM 79s near Gjirokaster (Argyrokastron), Sgt Gregory's machine was

“badly shot up”, Flg Off Linnard’s N5834 was “badly hit”, Flg Off Ripley was shot down in flames in N5854, and Sqn Ldr Hickey suffered mortal injuries baling out of N5816.

Early in January 1941 “a number of additional Gladiators were ferried to Greece, and four of these were supplied to 80 Squadron at Larissa as replacements”. A total of thirteen 80 Squadron Gladiators was flown to Ioannina on January 14, 16, and 18.

On January 20, when 80 Squadron intercepted CANT Z.1007bis bombers over Athens, Plt Off Stuckey’s K7902 was hit by return fire and he crashed and was killed while trying to land at Elefsis. On January 31 Flt Lt Kettlewell’s machine overturned while landing and sustained “severe damage”.

On February 9, when 80 Squadron engaged Fiat CR 42s between Tepelene and Gjirokastra, Flg Off Hosken had to bale out of N5811 and Flt Lt Kettlewell had to force-land N5858 due to loss of oil pressure (Michel Ledet states that N5858 was lost.) But the unit was reinforced by another five Gladiators on detachment from 112 Squadron. Three 80 Squadron machines were damaged in action on February 10.

On February 13 Sgt Barker’s N5761 was hit by AA fire and wrecked in a forced landing, but that evening five further 112 Squadron Gladiators joined 80 Squadron at Paramythia. On February 20 Flg Off Cullen’s machine was damaged in action but landed safely. On February 28 Flt Lt Dicky Abrahams had to bale out after being attacked by a Fiat G.50.

On March 6, 80 Squadron flew to Elefsis to re-equip with Hurricanes and “most of the remaining Gladiators were handed over to 112 Squadron”.

On March 8, 112 Squadron moved to Paramythia to take over 80 Squadron’s role. During an engagement next day Plt Off McDonald had to bale out of his blazing N5823 and four other Gladiators were damaged.

On March 11 or 12, “21 Mira at Paramythia was reinforced with two more Gladiators from the RAF, K7932 and 7984” (see Table 2). On March 13 Flg Off E. Banks crashed N5913 into Lake Ioannina while testing his guns. Next day a Macchi MC 200 shot the tail off N5916, Sqd Ldr Brown having to bale out, and Plt Off Bewker’s machine was damaged.

On March 15 two Gladiators were damaged while intercepting CANT Z.1007bis attacking Ioannina. On March 22 strafing Macchi MC 200s destroyed an ex-80 Squadron Gladiator at Paramythia. On March 26 Sqn Ldr Nedwill, CO of 211 Squadron, crashed and was killed while practising aerobatics in a 112 Squadron Gladiator, and Macchi MC 200s destroyed a Gladiator on the ground and damaged another in the air. On March 27 112 Squadron was ordered to dispatch all serviceable Gladiators to Paramythia. “At the end of the month 80 Squadron, having received its new Hurricanes, handed its last four Gladiators to 112 Squadron, ...Two of the unit’s tired Gladiators (K7932 and K7984) were passed on to 21 Mira at Ptolemais” (see Table 2).

Over the Albanian front there was action on April 13 for the first time after the German invasion when 112 Squadron Gladiators intercepted SM 79s and their Macchi MC 200 escorts over Korce (Koritsa) and Plt Off Brunton had to bale out when his machine lost its propeller. Next day 112 Squadron and 211 Squadron’s Blenheims were ordered to (prepare to?) evacuate Paramythia and Ioannina and move to Agrinion. Next day six Gladiators provided an escort for the SM 79 bringing King Petar of Yugoslavia to Paramythia. On April 15, when Fiat G.50s attacked Ioannina, Plt Off Brunton’s machine was “badly shot up” and he was wounded, Bf 109s strafing Larissa destroyed “a Gladiator (N5783) which was still

on the strength of 33 Squadron”, and 112 Squadron, which now had 12 operational aircraft left, was ordered to move to Hassani and share the airfield with 208 Squadron’s Hurricanes and Lysanders. On April 22 the surviving 14 Gladiators of 112 Squadron, “only six of which were operationally serviceable”, left Hassani for Iraklion, Crete, together with the four remaining Lysanders of 208 Squadron.

The serials of the 14 Gladiators flown to Crete have not yet come to light, just as it has not been possible to establish with certainty with how many Gladiators 112 Squadron moved to Greece, a few machines at a time, in the period December 4, 1940 through February 1941. Mason shows the unit equipped with K8025 at Port Sudan in June 1939, and with K7948, K7969, K7974, K7977, K7986, L7612, and L7619 at Port Sudan and Khartoum in July 1940. Robin Brown lists the serials of all the Gladiators used by 112 Squadron at one time or another from 1939 to 1946, thus confirming the serials shown by Mason but after L7619 also showing L7622, L8007, L8011 (transferred to 80 Squadron), N5774, N5823, N5895, N5916, and N5918. (Andre R. Zbiegniewski identifies only K7974 and N5829 as used by 112 Squadron in Greece, and the latter may well have been a Mk II transferred from 80 Squadron in March 1941.) Assuming none of the machines identified by Mason and Brown had been lost before 112 Squadron moved to Greece, then the unit probably had on strength some 15 Gladiator Mk Is and Mk IIs prior to December 4, 1940.

According to Shores’ account, 16 Gladiators were thus lost by 80 and 112 Squadrons during the “Greek Campaign”, and more than 20 were damaged badly enough to deserve mention. Of the 10 lost identified by their serials, nine were Mk IIs (N5761, N5785, N5811, N5812, N5816, N5823, N5854, N5913, and N5916). The tenth was K7902 (struck off charge, 23 Jan. 41), a Mk I which had been on strength with 80 Squadron in June but not August 1940. It would therefore appear that the additional Gladiators ferried to Greece in early January 1941 were probably former 80 Squadron Mk Is that had been put in storage at Aboukir, and that were possibly even still on charge because they had not yet been taken on strength by another unit. If so, some or all must have worn the serials K7901-K7907, and K7909.

RAF Gladiators in EVA service

On October 28, 1940, the EVA had had available four fighter squadrons. According to “Hellenic Wings”, 21 Mira was at Vassiliki airfield near Kalambaka with 10 PZL P.24s, 22 Mira with nine “inadequately equipped” PZL P.24s at Megali Mikra near Thessaloniki, 23 Mira with 11 PZL P.24s near Larissa, and 24 Mira with nine Bloch MB 151 C1s and two Avia B.534/IIs at Elefsis. Only 24 of the 30 P.24s, six of the MB 151 C1s and the two Avia B.534s were operationally serviceable.

By the end of November 1940 the EVA fighter squadrons had lost at least six P.24s – with two pilots killed and several wounded, including Lambropoulos in a P.24 later in the day on November 2 – and those damaged could only be kept serviceable by cannibalisation and with locally manufactured, or even hand-made, spares. (There is no available record of any losses sustained by 24 Mira by the end of November.) The EVA was consequently obliged to appeal to Britain for replacements and on December 2, 1940, the RAF responded by handing over a number of Gloster Gladiators. These were taken on charge and operated by 21 Mira until the fall of Greece, the unit’s surviving PZL P.24s being taken on strength by 22 and 23 Mire.

There is confusion and controversy regarding both the numbers and subtypes of Gladiators passed on to the EVA and operated by 21 Mira in the period December 2, 1940 through April 27, 1941. It has been suggested that 21 Mira used 25 Mk Is and up to 10 Mk IIs, but this estimate is based on records that do not differentiate between the Gladiators transferred to 21 Mira in Greece and those made available to EVA units or personnel undergoing training in North Africa and the Middle East from early 1941.

It is also essential to bear in mind that the only EVA aircraft to escape destruction or capture were five Avro Anson Mk Is, four Avro 621 Tutors and a single Dornier Do 22g that were evacuated to Crete (and later Egypt) on April 24, 1941, plus a Junkers Ju G-24 civil airliner of the EEES that had been requisitioned by the EVA. All of 21 Mira's Gladiators were shot down or destroyed on the ground, the only Gladiators evacuated from Greece being the 14 flown out to Crete by 112 Squadron on April 22, 1941.

The transfer and disposal of the 35 aircraft in question is consequently best examined with reference to the year in which each transfer was effected.

Table 1 – RAF Gladiators transferred to EVA in 1940

<u>RAF Serial</u>	<u>Type</u>	<u>Date/place of transfer</u>	<u>From / Comment</u>
K6135	Mk I	2 Dec.40/Elefsis	112 Squadron
K7892	Mk I	2 Dec.40/Vassiliki	80 Squadron
K7923	Mk I	2 Dec.40/Vassiliki	80 Squadron
K7973	Mk I	2 Dec.40/Vassiliki	80 Squadron
K8013	Mk I	2 Dec.40/Elefsis	33 Squadron
K8017	Mk I	2 Dec.40/Vassiliki	80 Squadron
K8018	Mk I	2 Dec.40/Elefsis	33 Squadron
K8031	Mk I	2 Dec.40/Elefsis	112 Squadron
K8047	Mk I	2 Dec.40/Elefsis	ex-33 Squadron 33 Squadron ex-80 Squadron
K8054	Mk I	2 Dec.40/Elefsis	33 Squadron
L7609	Mk I	2 Dec.40/Elefsis	33 Squadron
L7611	Mk I	2 Dec.40/Elefsis	33 Squadron
L7620	Mk I	Dec.40/Middle East?	RAF stocks, Middle East (ex-33 Sqn?)
L7621	Mk I	Dec.40/Middle East	RAF stocks, Middle East
L7623	Mk I	2 Dec.40/Elefsis	33 Squadron
L8011*	Mk II	2 Dec.40/Vassiliki	80 Squadron (ex-112 Sqn)

*This aircraft was one of 24 'L' series Mk Is (L8005-L8028) which had been brought up to Mk II standard at No.27 Maintenance Unit, UK, in January 1939, most of them being shipped to the RAF Storage Depot at Aboukir, Egypt, in March 1939, and L8005, L8012-L8028 being acquired by the Egyptian Air Force in May 1939. Upgrading consisted primarily of fitting a 840 hp Mercury VIII.A, a three-blade airscrew, an improved instrument panel and a Mk II windshield. Photos show that in 1940 L8011 had a two-blade wooden Watts airscrew without a spinner cap, a single aerial mast mounted at the starboard edge of the upper wing centre section and, like the Mk Is flown by 21 Mira, a Vokes carburettor air intake filter.

There is general agreement that 13 or 14 Gladiators were handed over to the EVA on December 2, 1940, and taken on strength by 21 Mira. Five of these were from 80 Squadron and are identified by Shores as K7892, K7923, K7973, K8017 and L8011, these serials being confirmed by Mason and by Lumsden & Thetford, except that the latter list K7829 instead of K7892 (obviously a printer's error) on the strength of 80 Squadron. All five fighters had been on charge to 80 Squadron in August 1940, hence it is evident that the unit had retained the four Mk Is when it re-equipped with Mk IIs, and that it had taken them with it when it moved to Greece. The fact that 80 Squadron was reinforced by four 112 Squadron Gladiators on detachment on December 4 would seem to indicate that, in addition to the Mk II (N5812) lost in action prior to December

2, Mk IIs described as "badly shot up" in action may have had to be written off.

Shores states that eight Gladiators were ferried in from Egypt to be transferred. He identifies these as K8013, K8018, K8031, K8047, K8054, L7609, L7611 and L7623, and says they were flown in to Elefsis by 112 Squadron pilots who returned to Egypt next day. Eric Bevington-Smith, who was in Greece at the time, agrees. Mason gives the same serials but states all eight machines were handed over by 33 Squadron pilots at Larissa. Lumsden & Thetford show all eight as having been on charge to 33 Squadron, and a photo of the tail of K8013 taken in Egypt shows the machine wearing the hart's head badge of that unit. Robin Brown, however, lists K8031 as a 112 Squadron machine that was ferried to Greece on December 2, 1940; presumably it was a 33 Squadron Gladiator that had been transferred to 112 Squadron sometime after September 1940.

The 14th Gladiator transferred is identified by Shores as K6135 of 112 Squadron, and Brown agrees, saying it was flown in from Egypt on December 2, 1940. It is not mentioned by Mason..

Bruce Robertson and Mason both show L7620 and L7621 as having been handed over to the EVA, the former saying "in 1940" and the latter giving no date but noting "transferred from R.A.F stocks, Middle East". Lumsden & Thetford show L7620 on the strength of 33 Squadron, but Mason does not, perhaps because he lists only machines on strength to September 1940. Although Michel Ledet (see below) tentatively suggests that L7620 may have been the Gladiator flown by *Anthiposminagos* Toregas and badly damaged while landing at Elefsis in December 1940, this seems unlikely. Both machines were almost certainly handed over to EVA units training in North Africa or the Middle East.

Alex Crawford has established that the Gladiators ferried to Greece to be transferred all came from Sidi Haneish on the Egyptian coast. In view of what Mason, Lumsden & Thetford and Brown say, the original points of departure were probably the RAF Storage Depot and 102 Maintenance Unit at Aboukir, 33 Squadron having started to re-equip with Hurricanes from August 1940 and 112 Squadron apparently taking Mk IIs on strength at the time.

A good description of the condition in which the Gladiators were handed over is provided by Michel Ledet in Batailles Aeriennes No.15: "After a little more than a month of sustained combat, the EVA is in pretty bad shape. The losses have not been very great, but they are not replaceable! The RAF is therefore appealed to and agrees to transfer Gladiator fighters; it appears that on a first occasion 14 (one is not sure of the exact number) machines are delivered to the Greeks, of which only 12 are taken into service. But these machines are in a condition that does not allow their immediate use. It is 21 Mira which has to take them; the tools for their maintenance are lacking as are the manuals, there is no spare part available and, finally, the radios are unusable because the Greek pilots do not have the same helmets as the RAF! On 10 December 1940 the squadron moves to Vassiliki-Kalambaka to take over its new aircraft, but snow rapidly puts a stop to all flying. The squadron has to wait until 19 December to move to Elefsis; there British mechanics overhaul the aircraft which are also given the codes Delta 181 to 192. It should be noted that one Gladiator (L7620?) is badly damaged while landing, 2/Lt A. Toregas being injured, and that two others land at Tatoi. At Elefsis, the Greek pilots collect English helmets and masks which enable them to use the radios and oxygen systems."

According to Ledet, 21 Mira moved to Kalambaka-Vassiliki airfield to take over their Gladiators, then had to

move to Elefsis near Athens to get them overhauled. Shores says the transfer of the machines was effected at Elefsis, Mason says at Larissa. Probably all three versions are correct, especially as some sources say the transfer was effected on December 1 and others December 2. No. 80 Squadron was at Ioannina at the time, so it would have made sense to fly the machines being transferred to relatively nearby Vassiliki or Larissa to be picked up by some of 21 Mira's pilots and ferried to Elefsis. The other nine Gladiators were flown in from Egypt, so the logical location for the transfer was Elefsis.

As regards the transferred machines' condition it is worth noting that all had been built in 1937 and each had seen service with other squadrons before serving with 33, 80 or 112 Squadron in the desert. A photo taken in Egypt of K7973 shows the kind of damage some (many?) of the Gladiators had sustained before they were moved to Greece. Since nine of the machines transferred had been serviceable enough to be flown from Egypt via Crete to Greece, it seems likely that the two Ledet says were not taken into service (serials unknown) were very "tired" fighters supplied by 80 Squadron.

Table 2 – RAF Gladiators transferred to EVA in 1941

<u>RAF serial Type</u>	<u>Date of transfer</u>	<u>From / Comment</u>
K7932* Mk I	14 Mar.41	112 Sqn / Returned to RAF and used by 1413 Met Flt. Later served with Greek Training Flight in the Middle East.
K7956 Mk I	11 Mar.41	ex-? / Struck off charge in the Middle East sometime in 1944
K7971 Mk I	unknown	80 Squadron ?
K7984* Mk I	11 (30?) Mar.41	112 Sqn. / Returned to RAF and used by 261 Sqn, then 237 Sqn. Broke up in the air over Tel Kotcheck, 14 Apr.42
K7988 Mk I	unknown	ex-? / Returned to RAF and used by 1413 and 1565 Met Flts. Possibly served with Greek Training Flight
K7989 Mk I	unknown	ex-? / Returned to RAF and used by 261 Sqn and X Flt Abadan. Transferred to Iraqi air force 6 Dec 42
K7990 Mk I	unknown	ex-? / Returned to RAF and used by 261 Sqn and Iraq Communication Flt. Struck off charge 1 Dec 43
K8019 Mk I	April 41	RAF Storage and Maintenance Unit, Aboukir
K8033 Mk I	March 41	ex-? / Returned to RAF in May 41 and used by 26 AACU
N5811 Mk II	never	80 Sqn / Flg Off Mosken baled out
N5812 Mk II	never	9 Feb. 41 80 Sqn. / Flg Off H.U.Sykes
killed		in collision with a Fiat CR 42, 28 Nov.40
N5814 Mk II	March 41?	80 Sqn. (via 112 Sqn?)
N5819 Mk II	March 41?	80 Sqn. (via 112 Sqn?)
N5823** Mk II	never	112 Sqn. / Flg Off McDonald baled out of blazing machine 9 Mar.41, died of his wounds
N5832 Mk II	March 41?	80 Sqn. (via 112 Sqn?)
N5854 Mk II	never	80 Sqn. / Flg Off A.D. Ripley shot
N5859 Mk II	March 41?	down in flames 21 Dec 40 80 Sqn. (via 112 Sqn?)

*According to Shores, these two aircraft were handed over to the EVA in Greece on March 11, 1941 (page 107) but then again on March 30, 1941 (page 123). The date given for K7932 is that provided by Francis Mason. Brown shows K7932 and K7984 on the strength of 112 Squadron.

** Shores implies that N5823 was being flown by 112 Squadron, but Lumsden & Thetford show this machine together with N5814, N5819, N5832, N5854 and N5859 on the strength of 80 Squadron.

It is evident from Table 2 that only the Mk Is K7971 and K8019 as well as the Mk IIs N5814, N5819, N5832, and N5859 could have been operated by 21 Mira, the transfers presumably having been effected before the Wehrmacht invaded Greece and the overall situation of the Greek and British forces became increasingly untenable.

However, Lumsden & Thetford only show K7971 on the strength of 80 Squadron sometime between March 1937 and April 1941, and Mason does not show it on strength in either June or August 1940, in which latter month the unit only had 9 Mk Is and one Mk II, five of which were transferred or lost. It may therefore be assumed that K7971 was either transferred to another unit or sent to Aboukir for maintenance and storage before June 1940, and that it was handed over to an EVA unit training in the Middle East and never saw service in Greece.

Mason shows K8019 as being at the "R.A.F. Storage and Maintenance Unit, Aboukir, 1940-41". Alex Crawford has learned that the machine was transferred to the EVA, but he has not found confirmation that it was ferried to Greece or that it was lost, destroyed or written off elsewhere.

The four Mk IIs were 80 Squadron machines and must have been in Greece from November 1940, where they can only have been transferred to 21 Mira, either directly or via 112 Squadron. (If they were not, they must first have been among the 14 Gladiators evacuated by 112 Squadron to Crete on April 22 and then among the five evacuated from Crete to Egypt on May 18 and 19, 1940 -- which would have been a truly remarkable coincidence.) They were obviously the two pairs of Gladiators mistakenly identified as K7932 and K7984 (see Table 2 footnote).

Tables 1 and 2 show, therefore, that a total of 19 Gladiators was handed over to the EVA, i.e., 14 in December 1940 and not more than another five in March/April 1941. Of these only 17 can ever have been taken on strength by 21 Mira since, as Ledet notes, two of the original 14 were never taken into service, probably either because they were unserviceable or had to be cannibalised to make others operationally serviceable.

Ledet states in *Batailles Aeriennes* No.15 (page 46, cols.1& 2) that 12 of the 14 Gladiators handed over in December 1940 were given the codes Delta 181-192, and notes (page 57, col.1) that another five *usés* (worn) Gladiators which were transferred around the time 80 Squadron completed re-equipment with Hurricanes (March 6, according to Shores), were given the codes Delta 193-197.

Camouflage and Markings

The two Sarpakis Gladiator Mk Is initially had an overall silver, i.e. aluminium dope, finish. Only the inscriptions, codes and blue/white/blue rudder flashes were applied for the donation ceremony; wing roundels in the four standard positions were added when they were actually taken into service. It is safe to assume that both machines were wearing the new green/ochre over pale blue camouflage scheme fairly early in 1940. Unfortunately no photo of either aircraft wearing camouflage has been found to date. In accordance with regular EVA practice, they must have continued to wear their *Delta Sigma* donation codes

The ex-RAF Gladiators successively taken on strength by 21 Mira were operated wearing the same camouflage as in British service, i.e. three different types of upper surface scheme and two or possibly three kinds of under surface scheme.

The ex-80 Squadron machines wore the camouflage introduced at the time of the 1938 Munich Crisis. This

consisted of Dark Earth/Dark Green upper surfaces with the colours applied in accordance with either Scheme A or Scheme B, the latter being a mirror image of the former. Photos of L8011 show this standard scheme as does a good photo of K7974 (which was presumably in the same production batch as K7973 of 80 Squadron).

In August 1940, according to the Air Enthusiast of March 1973, "The port underside of the lower wing and fuselage of No.80 Sqdn Gladiators was painted black while other under surfaces remained silver (aluminium dope)". Photos of 80 Squadron Gladiators bear out this statement, showing that the entire under surfaces of the upper wing and both tailplanes were painted Aluminium.

From May 25, 1938, all the port under surfaces of RAF fighter aircraft should have been painted Night (black) and the starboard under surfaces White, the colour demarcation line being the fuselage centre line. However, due either to an earlier directive or to misinterpretation of the May 1938 directive, even in Britain only the wings of some aircraft were painted Night and White, the remaining under surfaces, often including the ailerons to preserve their balance, being left Aluminium.

Instructions subsequently given on June 6, 1940, required the under surfaces of fighter aircraft to be painted Sky from June 17 of that year, but many aircraft retained the half-Night, half-White scheme for some time after the latter date, abroad even longer than in Britain, until stocks of Sky became available. (Michael J.F. Bowyer remarks that "During the campaign in Greece some Hurricanes were seen with half black under surfaces", but this was probably the Night/Sky under surface scheme worn in the winter of 1940/41. The first Hurricanes arrived in Greece in mid-February 1941.)

Photos of 33 Squadron Gladiators reveal that, like those of 80 Squadron, they also had only the port under surfaces of the fuselage and lower wing painted Night, the remaining under surfaces, including that of the port tailplane, being Aluminium. However, they had their serials painted in large white characters on the black surface of the wing and a roundel on the other side, both markings which, like those of 80 Squadron Gladiators, had presumably been obliterated by the time some of them were handed over to the EVA. On their upper surfaces they wore a field-applied desert camouflage scheme. Photos of L7619 and of K8013's tail show a paler colour painted over the Dark Earth areas so as to leave margins of the latter between the new colour and the Dark Green, resulting in a kind of three-colour camouflage. Whether the new, third colour was Light Earth is difficult to tell. Due to a persisting shortage of Light Earth paint in the Middle East, ground crews had resorted to mixing Insignia Yellow with Dark Earth, resulting in variations in shade from unit to unit.

Two field-applied camouflage schemes came into use in Egypt in the course of 1940/41. The first, the "Tropical Land Scheme", with Light Earth substituted for Dark Earth, took into account the green areas around the Nile. As the war moved into the desert, Light Earth was substituted for Dark Green to make the early "Desert Land Scheme". The Tropical Land Scheme disappeared with the introduction of the official Desert Scheme comprising Dark Earth/Mid Stone over Azure Blue under surfaces. As this official scheme was only introduced after August 1941, it cannot have been worn by any Gladiators that served in Greece.

Crawford depicts 112 Squadron's K6135 wearing standard Dark Earth/Dark Green upper surface camouflage and this is confirmed by a photo in an article by Bowyer. Crawford says K6135 had Night/White under surfaces. Another photo reproduced by Bowyer shows a Gladiator of an

unidentified squadron, photographed in the Western Desert in the summer of 1940, with the port undersides of both wings painted Night, the caption stating "The under belly is all white (sic)..." According to Andre R. Zbiegniewski, K7974 had the port under surfaces of the wing, fuselage and tailplanes painted Night while N5629 also had the port under surface of the upper wing painted Night. According to another source, K6134 had all its under surfaces painted Night/White in late 1940. It would thus appear that most, if perhaps not all, of 112 Squadron's Gladiators wore the full Night/White pre-June 17, 1940, scheme. But note that although K8031 was transferred to the EVA from 112 Squadron, this aircraft had previously been on the strength of 33 Squadron and probably still wore its field-applied camouflage over an Aluminium/Night scheme.

A photo of Flt. Lt. M.T. StJ. Pattle in an 80 Squadron Gladiator Mk II wearing a Type A.1 fuselage roundel, shows that this aircraft, and presumably most or all of the Mk IIs taken on strength by the unit just before moving to Greece, wore the Shadow Shading scheme. This consisted of painting Light Earth/Light Green those parts of an aircraft which would normally be in shade. On Gladiators these were the top of the lower wing, fin, rudder and lower sides of the fuselage, the remaining upper surfaces being painted Dark Earth/Dark Green and the under surfaces Night/White. However, if the Mk IIs had just arrived from Britain, some of them may have had their under surfaces painted Sky. This would explain why Bowyer says of Gladiators in Greece that they "were now in brown-green/Sky finish with grey codes and black serials". Since N5814, N5819, N5832 and N5859 were Mk IIs, it can be assumed they wore the Shadow Shading scheme when transferred to the EVA.

Photos of 21 Mira Gladiators show that the RAF markings were painted over, almost certainly using EVA paint stocks, after the machines had been transferred. In the case of 80 Squadron Gladiators, both Mk Is and Mk IIs, this obviously entailed obliterating roundels, codes and fin flashes. But the codes on ex-33 and ex-112 Squadron machines may well have been obliterated using RAF paint stocks before they were ferried to Greece, leaving only the roundels and fin flashes to be eliminated. (K8013 of 33 Squadron, like K7973 and L8011 of 80 Squadron, wore no fin flashes when photographed in 1940, but the photos must have been taken before the order went out on May 1, 1940, to paint yellow outer rings on fuselage roundels, thus converting Type A to Type A.1, and red/white/blue stripes on fins.)

Stavros Verras has managed to find several photos showing 21 Mira Gladiators. One of L8011 seen in a private collection shows RAF two-colour upper surface camouflage, an EVA roundel on the fuselage, no RAF letter code or EVA *Delta* code, but the RAF serial intact, and EVA roundels about the size of the red disk in the RAF Type B (red/blue) roundel on the upper wing. Photos of two other Gladiators show EVA fuselage roundels but no trace of either RAF or EVA code letters or numbers.

It is not possible to discern from the available photos whether only yellow outer rings were obliterated and the red centres of RAF fuselage and underwing roundels painted over with EVA medium blue, but this may possibly have been the case in view of the haste in which the aircraft were overhauled and given new markings while conversion training was in equally hurried progress (December 20-22, 1940).

The RAF serials appear to have been retained on all of 21 Mira's Gladiators and, as Stavros Verras has been able to confirm from records, in combat reports the individual aircraft were always referred to by these serials, and not by their *Delta* codes. This may indicate that *Delta* codes were never painted

on 21 Mira Gladiators or possibly on only on a few of them, in which case the characters were probably black as on PZL P.24s. However, the EVA is known to have assigned codes on paper to aircraft that had been ordered but were ultimately never delivered, e.g. Leo 451 bombers, so it is likely that the Delta codes of ex-RAF Gladiators also appeared only on paper. It has in any case proven impossible up to now to correlate the RAF serials and EVA codes.

The continued use of the RAF serials may have been prompted by various considerations (e.g. maintenance records), but it does explain why some non-Greek sources have suggested that 21 Mira Gladiators were flown wearing RAF markings. (The six Blenheim Mk Is transferred to the EVA in March 1941 were given full EVA markings, including the *Vita* codes B263-B268 in black, after which the yellow outer rings of the RAF fuselage roundels showed faintly through the new paint.)

Combat

On December 23, overhauls and conversion training having been completed in a couple of days (due to previous experience with a Sarpakis Gladiator?), 21 Mira led by *Sminagos* Ioannis Kellas moved with 11 Gladiators to Ioannina, and 80 Squadron returned to Larissa.

As is to be expected, there are many and large gaps in the history of the action seen by 21 Mira in the period December 23, 1940 through April 23, 1941. Many of the gaps are due to the very adverse weather prevailing throughout much of the period that often made flying impossible, others to the destruction or loss of records. The following account has therefore been pieced together by amending that provided by Shores with information provided by Ledet and facts gleaned by Stavros Verras from the History of the Hellenic Air Force, Vol.3 (HHAF/3).

There is no indication what sorties were flown by 21 Mira between December 23 and 29, but on the latter date the unit's Gladiators were the only EVA fighters available. The P.24s of 22 and 23 Mire, which had been moved to the forward airfield at Ptolemaitha in Macedonia and had been bogged down by heavy rain, snow and subzero temperatures, were being transported by truck and rail to Thessaloniki where they would only be ready for action on December 30.

On the morning of December 29, therefore, when 28 CANT Z.1007bis bombers of 47° Stormo appeared over the front, one formation was intercepted by nine Gladiators of 21 Mira. The Italian gunners claimed one Gladiator probably shot down. What claims 21 Mira pilots made is unknown, but Ledet states no bomber was lost.

On December 30 a Fiat BR 20 of 37° Stormo BT encountered Greek Gladiators, sustained damage and had a crew member wounded, but was able to return to base.

On January 8, 1941, the crews of CANT Z.1007bis bombers claimed to have been attacked over the Ostravo area in Macedonia by a combined force of Gladiators, P.24s and "Hurricanes" (Bloch MB 151s). Later in the day 21 Mira Gladiators and 24 Mira P.24s engaged Fiat CR 42s escorting a 72° Gruppo Ro 37 over the Kelcyre (Klissoura) area. The Greeks claimed two CR 42s shot down; the Italians, five Gladiators, one allegedly having been seen force-landing at Gjirrokaster. Shores comments that "So far as can be ascertained, neither side in fact suffered any loss", but the HHAF/3 states that *Hiposminagos* Antonios Papaioannou (see February 9) was badly wounded in the back, that his Gladiator was irreparably damaged in a forced landing near Kakavia, and that he was still recovering from his wounds on February 9.

Adverse weather subsequently reduced activity until January 12, by which time Ioannina airfield was unserviceable. It then snowed heavily, interspersed with rain, for several days, there being continuous rain and thunderstorms on January 17 and 18.

Among the airfields most badly affected was that at Kalambaka-Vassiliki, where 21 Mira was now based. When orders were received to fly to Elefsis to provide cover for an incoming convoy, the unit's personnel found it impossible to clear the runway by themselves. The C.O., Ioannis Kellas, appealed to local villagers for help and about 200 old men, women, and children responded. Using farm tools, they cleared enough ground to enable the Gladiators to take off next day. Its mission accomplished, 21 Mira left Elefsis and moved to Ptolemaitha.

On January 25, 10 CANT Z.1007bis of 50° Gruppo Autonomo BT raiding Thessaloniki were intercepted by Gladiators of 21 Mira and P.24s of 22 Mira. Two bombers were claimed shot down, one by each Mira, but the Italians reported only one bomber brought down by AA fire and a second damaged by Gladiators. On the same day Fiat BR 20s of 37° Stormo BT reported interception by Gladiators and P.24s over Kelcyre, their gunners claiming a P.24 shot down. Two BR 20s were claimed by pilots of 22 and 23 Mire P.24s, but actually one BR 20 only force-landed badly damaged near Berat while another returned to Lecce with three crew members wounded.

On February 8, CANT Z.1007bis of 37° Stormo BT raiding "Cajazza" (??) and Suke (Suka) were engaged by Greek fighters and claimed one Gladiator and one, or probably two, P.24s shot down. One bomber was destroyed in a forced landing at Lecce. Shores notes that "There are no Greek claims or losses recorded for this date and it is possible that these engagements were among those reported by EVA units on 9 February".

At about midday on February 9, according to the HHAF/3, four Gladiators of 21 Mira flown by *Sminagos* Ioannis Kellas (L8011), *Anthiposminagos* Anastasios Bardavilias, *Iposminagos* (?) Niko Kostorizos and *Sminagos* Elia Demetrakopoulos (L7611), together with eight P.24s of 22 and 23 Mire intercepted over the Kelcyre-Tepelene area an estimated 42 aircraft formation comprising SM 79s of 104° Gruppo escorted by Fiat CR 42s of 160° Gruppo and Fiat G.50s of 24° Gruppo. In the battle that followed, Kellas claimed two bombers shot down and three other Greek pilots one aircraft each. Shores states Kellas claimed two bombers and Bardavilias two fighters, while *Episminias* Dagoulas and *Hiposminagos* Mitralaxis, both of 22 Mira, claimed a bomber and a fighter respectively. Shores notes that no Italian fighters were actually lost in the encounter, and that some of the bombers may have been Ju 87s of 238a Squadriglia attacked by Greek fighters on the same day or possibly even bombers intercepted the day before. The Fiat CR 42 pilots, Shores says, claimed three Gladiators and two P.24s shot down; the Fiat G.50 pilots, one Gladiator and three P.24s. He notes that a P.24 hit in the engine was destroyed in a crash landing, that *Episminias* Ioannis Mihopoulos, although wounded, flew his badly damaged P.24 back to Thessaloniki-Sedes, and that a Gladiator flown by Papaioannou (see January 8) was hit and destroyed in a forced landing. The HHAF/3 states the Gladiators L8011 and L7611 were damaged, the damage being described by Kellas in a handwritten report which is reproduced on page 264. Kellas' writing is difficult to decipher, but it looks as though both aircraft had sustained structural damage which, unlike mechanical damage, was

difficult, if not impossible, to repair at a forward airfield. It is not known whether L8011 or L7611 ever flew again.

On February 10 Italian bombers of various units made repeated raids on Ioannina, both the EVA and the RAF flying patrols and intercepting in what Shores terms, in something of an understatement, "a series of rather confused engagements". He states that, in the morning, 21 Mira Gladiators attacking SM 79s of 104° Gruppo were attacked in turn by the Fiat G.50 escort led by Magg. Leotta, which claimed two Gladiators shot down, including one flown by Anastasios Bardavilias (see February 11). The HHAF/3 notes only that, at 1010 hrs on February 1, four 21 Mira Gladiators flown by *Sminagos* Metaxas, *Anthiposminagos* Anastasios Bardavilias, *Sminagos* Elia Demetrakopoulos and *Anthiposminagos* (?) Skaltsogiannis, on patrol together with seven P.24s of 22 and 23 Mire, attacked a bomber formation, claims subsequently being made by the Greek pilots who suffered no losses. Shores adds that five CANT Z.1007bis crews reported interception by 10 Gladiators and a "Curtis" (Bloch MB 151), claiming one Gladiator shot down for three bombers damaged.. Another nine bombers apparently met five Gladiators, with yet another formation encountering eight Gladiators and P.24s, claiming three of the latter shot down. In the afternoon, which Shores says was "practically a continual air raid alarm", SM 79s of 104° Gruppo and their Fiat G.50 escort claimed a Gladiator shot down when its pilot intercepted single-handed. Ten 47° Stormo CANT Z.1007bis reported being attacked by 10 Gladiators and seven P.24s, claiming four Gladiators shot down for seven bombers damaged and a number of aircrew wounded. Ioannina airfield was raided, three 80 Squadron Gladiators being damaged and one 21 Mira Gladiator destroyed.

At break of day on February 11, according to the HHAF/3, Italian bombers escorted by Fiat CR 42s raided Katsika airfield. Air Defence having advised, wrongly, that the bombers had no escort, Anastasios Bardavilias and Niko Kistorizos took off at 0630 hrs. Witnesses on the ground later reported that the two Gladiators were in a tight climbing turn at about 200 metres when the Fiat CR 42s hit them. Bardavilias was shot down in flames and crashed on the airfield. Kistorizos managed to evade the Fiats and land his bullet-riddled machine at Bisduni airfield close to Lake Ioannina. Shores states the Fiat CR 42s were from 150° Gruppo and led by *Cap. Luigi Mariotti*, and that they strafed Ioannina airfield with Fiat G.50s of 154° Gruppo flying cover, one Gladiator being shot down as its pilot attempted to take off and three damaged. He adds that a 21 Mira Gladiator was damaged when six 150° Gruppo Fiat CR 42s again strafed Ioannina airfield in bright moonlight at about 2300 hrs on February 11.

Sometime between February 11 and 17, 21 Mira moved to Paramythia, where they were joined by six 80 Squadron Hurricanes and four 30 Squadron Blenheims, the Gladiators of 80 and 112 Squadrons remaining at Ioannina.

In the afternoon of February 16, a reported 20 Gladiators and P.24s attacked Fiat BR 20s of 37° Stormo raiding targets in the Trebeshinj mountains. The Italians had one crewman wounded, their gunners claiming one P.24 shot down. The 23 Mira claimed one bomber shot down.

On February 20, 15 Fiat G.50s of 154° Gruppo escorting four Ro 37s on reconnaissance over the Kelcyre-Tepelene area were engaged by 19 Greek Gladiators and P.24s. The Greek pilots claimed three G.50s and a Ro 37 shot down, but only two G.50s were hit, *Ten. Franchini* and *Ten. Fusco* force-landing at Berat with one of the fighters being destroyed, while one Ro 37 was damaged. The Italians claimed 10 Greek fighters shot down and eight damaged. However, Shores &

Cull with Malizia note that "The Greek losses are not recorded, but none of their pilots were reported killed or wounded".

On February 23, 12 Fiat G.50s of 154° Gruppo patrolling the Kelcyre-Devoli area encountered a formation of 21 and 23 Mira fighters they estimated to include 15 Gladiators and 10 P.24s. The Italians claimed four P.24s and one Gladiator shot down, plus three probables of each type. The actual Greek losses were *Episminias* Konstantinos Hrizopoulos of 21 Mira, who was shot down and killed (in *Delta 188* at Kerasovo according to Ledet) and *Sminagos* Nikolaos Skroubelos of 23 Mira. The pilots of 23 Mira claimed three Fiat G.50s shot down, but Shores remarks that "the Italians appear to have suffered no losses on this occasion".

On March 9, the day the Italian spring offensive was launched, the gunners of SM 79s of 105° Gruppo claimed three Gladiators shot down and those of a CANT Z.1007bis of 50° Gruppo a single Gladiator ("possibly a Greek machine") that had attacked them. In fact only N5823 of 112 Squadron was lost and four Gladiators were damaged.

Early in the morning of April 2, 10 CANT Z.1007bis of 35° Stormo and 50° Gruppo bombed the railway complex at Florina. Some of the bombers were damaged by AA fire, others were attacked by seven Gladiators of 21 Mira now based at Ptolemaitha. The Greek pilots claimed two bombers shot down, but only one Z.1007bis of 35° Stormo was lost.

On April 6, the day on which Hitler launched Operation Marita, the invasion of Yugoslavia and Greece, 22 Mira with its P.24s and 24 Mira with a few serviceable Bloch MB 151s moved to Kalambaka-Vassiliki airfield, where they were subsequently joined by 21 Mira.

At about 1030 hrs on April 14, nine Gladiators of 21 Mira attacked 10 CANT Z.1007bis of 35° Stormo BT in the Ioannina area. The Italians claimed two Gladiators shot down, one by a bomber's gunners and another by a Macchi MC 200 of the 153° Gruppo CT escort, but no loss of any Gladiator was recorded. Later in the day a Messerschmitt Bf 109E pilot of II/JG 27 claimed a Gladiator shot down south of Florina.

At Kalambaka-Vassiliki at about 0700 hrs on April 15, five 21 Mira Gladiators flown by Ioannis Kellas, D. Skaltsogiannis, I. Katsaros, K. Hondros and I. Papadimitriou, were scrambled together with some 10 P.24s and Bloch MB 151s of 22, 23 and 24 Mire to intercept an approaching formation of 18 Ju 87s and about 20 Bf 109Es. As the leading Greek fighters closed on the dive bombers, which had changed course towards Trikala, they were met by the Bf 109Es of II/JG 27. In the dogfight that followed, Oblt Gustav Rödel claimed a "Hurricane" (Bloch MB 151), a Gladiator and a P.24 shot down. Ofw Otto Schulz claimed a P.24 and Lt Ernst Börngen and Oblt Wilhelm Wiesinger a Gladiator each. The HHAF/3 relates that Kellas' Gladiator was hit and, unable to shake off the Bf 109Es on his tail, he had to crash land his burning machine on broken ground. The impact snapped his seat belt and he was thrown clear, sustaining only minor injuries, but he had to watch his Gladiator go up in flames. Kellas was presumed killed in action, his name being used as the password at the airfield that night, but he made it back to base on foot a day later. The other two EVA fighters lost were a P.24 of 22 Mira flown by *Episminias* Leonidas Katsarelles, who was shot down but survived after being rescued from the wreck by nearby villagers, and a Bloch MB 151 of 24 Mira flown by *Episminias* Georgios Mokkas, who was killed after shooting down a Ju 87. *Anthiposminagos* Panos Ekonomopoulos' Bloch MB 151 was badly damaged. A P.24 of 22 Mira was damaged but its pilot, Basil Kontogiorgos, managed to fly back to base despite a leg wound.

The April 15 dogfight was to prove the last for the Greek fighter squadrons. From this date the EVA could only play a grim game of hide and seek with the Luftwaffe, and most of its surviving aircraft would be destroyed on the ground.

On April 16, Shores relates, "During the day the remaining Greek fighters at Kalambaka/Vassiliki were withdrawn to Amphiklia/Lodi at the foot of Mount Parnassus ... Twenty-one fighters – 11 PZLS, eight Gladiators and two Bloch 151s – flew down to their new airfield". Ledet, however, states that "the Vassiliki airfield is abandoned by 11 P.24s, two Bloch 151s, nine Gladiators and a single Avia B.534 (attached to 24 Mira). All land at Amphiklia-Dadi".

On April 19, as related by Shores, "Due to the disruption of the warning system, none of the Greek fighters now based (at Amphiklia-Lodi) were able to get airborne as Bf 109s swept overhead, strafing with great efficiency and skill. All but three of the 21 PZLS, Gladiators and Blochs were destroyed. The German pilots claimed ten 'Glosters' and nine unidentified aircraft destroyed ... The three surviving fighters were ordered to fly to Eleusis; only 23 Mira's few PZLS, now based at Argos in the Peloponnese remained to offer any Greek aerial resistance."

Ledet's account of this disaster differs significantly: "The Greek fighter command is also a victim of the Luftwaffe on this 19 April; the Bf 109s give no quarter: 8 Gladiators, 7 P.Z.Ls and two Blochs are destroyed on the ground. Only the Gladiator Delta 196 is slightly damaged. Two mechanics still at the site repair it, permitting Capt. Papadimitriou to take off for Elefsis in the evening. Only four P.24s of 22 Mira can escape the massacre and take refuge at Argos in the Peloponnese".

Also on April 19, Macchi MC 200s of 150° Gruppo CT strafed the airfields at Katsikas and Ioannina, claiming four Gladiators destroyed on the ground and a fifth as a probable. "As no serviceable aircraft were based on these airfields any longer," Shores notes, "these were probably either derelict wrecks or dummies."

At 1535 hrs on April 20, according to Shores, "Eleusis itself came under attack by II/JG 27 Bf 109Es, their fire destroying several aircraft including two 33 Squadron Hurricanes and two of the surviving Greek fighters here". Ledet again differs: "Elefsis is attacked by the Bf 109s of II/JG 27 which destroy several of the precious Hurricanes on the ground as well as the Greek Gladiator Delta 196".

According to Shores, the EVA's Fighter Command was thus reduced to one fighter at Elefsis and a few surviving P.24s of 23 Mira at Argos or, according to Ledet, four 22 Mira P.24s at Argos. Whoever is right, the fact is that all the fighters at Argos, and most of the other aircraft present, were destroyed or rendered unserviceable by Luftwaffe attacks on April 23.

The available photos of captured or destroyed EVA fighters show only badly damaged PZL P.24s and the wrecks of Bloch MB 151s. There are several photos of the wrecks of Gladiators, but there is none of a captured 21 Mira or RAF Gladiator. Regardless of how many Gladiators were ever sent to Greece, it is obvious that only the 14 evacuated by 112 Squadron ever left the country.

Some members of 21 Mira managed to escape to Africa and the Middle East. The C.O., Ioannis Kellas, served from September 6, 1942 to January 22, 1943 as C.O. of 335 (Hellenic) Squadron flying Hurricane Mk IIs in the desert. He had one or two Gladiators attached to the squadron and used one as a personal hack. There is a memorial to Kellas at Larissa.

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Author's notes

The information available at the time of writing was incomplete as regards the serials of the Gladiators 112 Squadron took to Greece and subsequently evacuated to Crete, and as regards a correlation between Delta codes and RAF serials. However, missing information tends to turn up once a text has gone to press.

The present-day, transliterated Greek place names have been used throughout except in quotes, e.g. Ioannina, not Yannina; Elefsis, not Eleusis; and Dadi, not Amphiklia-Lodi. They are also shown in parenthesis behind Albanian place names where this can help readers identify the location in accounts published elsewhere, e.g. Gjirrokaster (Argyrokastron) and Kelcyra (Klissoura), since much of the action described took place over what is North Epirus where a considerable percentage of the population is ethnic Greek.

The same approach has been adopted with regard to pilots' names and ranks

The story of 21 Mira's ex-RAF Gladiators as related above could not have been written without the generous help of Greek friends. I am especially grateful to Stavros Verras who took considerable time and trouble to consult the History of the Hellenic Air Force and provide information and advice as well as photos I had not even known existed. I must also thank Yannis Trypitsis and Stamatis Andreou, particularly as Stamatis originally aroused my interest with the understatement that the history of the 21 Mira Gladiators was "obscure". Finally, I am indebted to Alex Crawford for consulting his reference materials and establishing how many Gladiators were reportedly handed over to the EVA in 1940/41, for determining what happened to 80 Squadron Gladiators not lost in Greece, and for answering numerous queries.

Gloster Gladiator Mk I & II

Airframe – Equal-span, single-bay, single-seat biplane of all metal construction. Forward fuselage covered with detachable duralumin panels, aft section of fuselage, wings and tail assembly with fabric skinning.

Dimensions – Wingspan 32ft 3 in (9.83m); length 27ft 5 in (8.36m); height 10ft 7 in (3.22m); wing area 323 sq ft (30.01 m²)

Engine – Bristol Mercury IX (Mk I), Mercury VIIIA or VIIIAS (Mk II) supercharged 9-cylinder radial rated at 830 hp at 2,750 rpm at 14,500 ft (4420m) and 725 hp at 2,650 rpm for take-off. Maximum continuous output 720 hp at 2,400 rpm

at 12,500 ft (3810m). Watts 2-blade, fixed-pitch wooden airscrew of 10ft 9 in (3.28m) diameter (Mk I) or Fairey 3-blade fixed-pitch metal airscrew of 10ft 6 in (3.20m) diameter (Mk II).

Armament – Four fixed 0.303-in (7.7 mm) BSA (Colt) Browning machine guns. One each side of the fuselage with 600 rpg and synchronized to fire through the airscrew disk, one under each side of lower wing with 400 rpg.

Performance – Mk I: max. speed, 210 mph (338 km/h) at sea level, 245 mph (394 km/h) at 10,000ft (3048m), 253 mph (407 km/h) at 14,500ft (4420m), 236 mph (380 km/h) at 20,000ft (6096m); time to 8,000ft, 3.05 min; range 428 miles (689 km) at 225 mph (362 km/h) at 14,500ft.

Mk II: max. speed 215 mph (346 km/h) at sea level, 249 mph (400 km/h) at 10,000ft (3048m), 257 mph (413 km/h) at 14,600ft (4450m), 239 mph (385 km/h) at 20,000ft (6096m); time to 8,000ft (2438m), 2.9 min, to 15,000ft (4572m), 5.66 min; range 444 miles (714 km/h) at 225 mph (362 km/h) at 14,600ft

NB All Gladiators in the 'K' series were Mk Is, as were all those in the 'L' series up to L8004. All Gladiators in the 'N' series were Mk IIs.

Thirty-nine Gladiator Mk IIs (L8005-32, N2303-6 and N2308-14) were Mk Is that had been brought up to Mk II standard. Externally visible differences between the Mk I and Mk II were the redesigned windshield (additional framework)

and 3-blade airscrew of the latter. But many Mk IIs were either fitted or retrofitted with the same 2-blade airscrews as Mk Is. Aerial layout varied: regardless of mark it appears to have been either a "Y" attached to each side of the upper wing and the fin or a single line attached to the fin and a short mast mounted at the starboard edge of the upper wing centre section near the leading edge.

Gladiator vs Fiat CR 42 – Of combat in Greece, the Air Enthusiast notes "The Italian fighter proved faster than the Gladiator which it could out-dive and out-climb, but there was little to choose between the two aircraft in manoeuvrability and neither succeeded in establishing a clear ascendancy over the other".

Equivalent ranks

EVA	RAF	USAF
Episminias	Sergeant	Master Sergeant
Arhisminias	Flight Sergeant	Chief Master Sergeant
Anthiposminagos	Pilot Officer	2 nd Lieutenant
Iposminagos	Flying Officer	1 st Lieutenant
Sminagos	Flight Lieutenant	Captain
Episminagos	Squadron Leader	Major

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Captions for photos on page 143-144 & 110.

1. The formal donation ceremony at Elefsis, January 1938. Delta Sigma 2 *Stylios Sarpakis* is on the left, Delta Sigma 1 *Santorini* – *Thira* on the right. (via Stamatias Andreou)

2. Delta Sigma 2 *Stylios Sarpakis*. The Skoda machine guns have not yet been fitted. Note the Mk I type windshield, standard carburettor air intake, and the airscrew with natural metal spinner and painted blades with black backs. (IPMS-Hellas via Stamatias Andreou)

3. L8011 of 80 Squadron, Egypt, early 1940. Note the two-blade airscrew without a spinner, Vokes carburettor filter and single, offset radio mast. Yellow outer rings were added to fuselage roundels and red/white/blue flashes painted on fins after May 1, 1940. (via Stavros Verras)

4. An 80 Squadron Gladiator. The port undersides of the lower wing and fuselage – but not the port tailplane – have been painted Night (black), all the remaining under surfaces are still Aluminium. (via Stavros Verras)

5. K7973 of 80 Squadron, Egypt, sometime before May 1, 1940. No wonder the Gladiators handed over to the EVA and flown by 21 Mira were "tired" and "worn". (via Stavros Verras)

6. K7974 of 112 Squadron prior to May 1, 1940. Note the standard Dark Earth/Dark Green upper surface camouflage, lack of a fin flash and yellow ring around the fuselage roundel, and the black serial. (Alfred Thorne via Alex Crawford)

7 K7974 of 112 Squadron still wearing standard Dark Earth/Dark Green upper surface camouflage but with the fin flash and yellow outer ring of the fuselage roundel introduced from May 1, 1940. Note the pale grey serial. (Alfred Thorne via Alex Crawford)

8. A 21 Mira Gladiator. Note the blue/white/blue EVA roundel and absence of an RAF letter or EVA Delta number code. The single, offset radio mast looks like that of L8011, but the windshield is that of a Mk I. (via Stavros Verras)

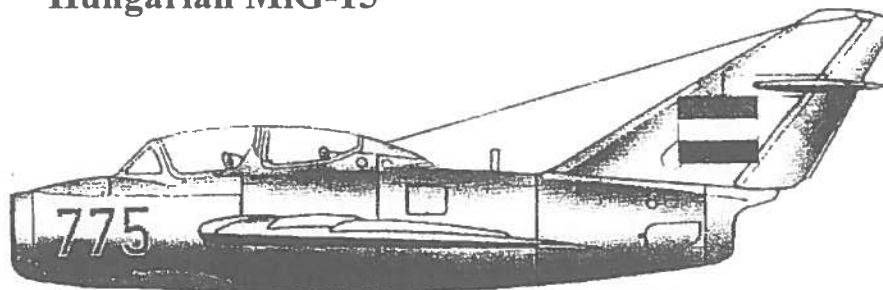
9. 21 Mira pilots next to L8011. The RAF serial has not been painted over in EVA service. (via Stavros Verras)

10 A 21 Mira Gladiator Mk I at Ptolemaitha, March 22, 1941. The EVA roundel is faintly visible. The demarcation line between the fuselage colours Dark Green and Dark Earth does not match that on the cowling, which must have been taken from another machine. (D. Voyatzes via Stavros Verras)

Hungarian MiG-15

Markings carried by rebel aircraft during the Hungarian Revolution of 1956. Aircraft overall natural metal with Hungarian flag on the fin.

(See book review on page 138.)



The Henschel Hs 123A in China

Rudolf Höfling

[Author's Note: This article is a translation of a chapter from my new monograph on the Henschel Hs 123. This monograph will be published in the near future by the Flugzeug Extra publishing house.]

After war between China and Japan broke out following the Nomenhan-incident on 7 July 1937, the Chinese government began buying military aircraft of all types from countries around the world. One such country was Germany.

In 1937, a Chinese purchasing commission visited several German aircraft works. It so happened that at this time the German Reichsluftfahrtministerium (RLM = Ministry of Aviation) had approved the export to Portugal of a dozen Henschel Hs 123A-1 ground-attack/dive-bombers by the Henschel Flugzeugwerke AG in Berlin-Schönefeld. However, when it became known that the sale to the Portuguese *Arma de Aeronáutica* would not take place, the RLM offered these Hs 123A-1 to the Chinese purchasing commission. The selling price for all twelve biplanes including equipment and spare parts was 2,017,000 Reichsmark (RM) corresponding to a unit price of 168,133 RM.

On 3 November 1937, the *Deutsche Handelsgesellschaft für industrielle Produkte* (HAPRO = German trade company for Industrial Products) finalized a contract for the delivery of the twelve Henschel Hs 123A-1. These aircraft were accepted on 22nd of the same month at the Henschel works at Berlin-Schönefeld. The transport of these twelve dive-bombers to China was planned via sea route scheduled to start on 26 November 1937 from Bremen. In the sales statistics of the Henschel Flugzeugwerke AG, this order is listed as "Auftrag Ost: 12 Stück Hs 123A mit Ersatzteilen, RM 2,017.600" (Order East: 12 pieces Hs 123A with spare parts, RM 2,017.600").

For political reasons, this transport was delayed one month while the aircraft were dismantled, packed in big boxes, and shipped overland to Venice. A thirteen-man team from the Henschel works was assigned to accompany the planes on their long journey and to supervise the assembly of the aircraft at their final destination in China. This team was headed by von Winterfeldt, a Luftwaffe officer in the reserves who was also a test pilot for the Henschel AG. Other members of the German team included Bauske (for engines and hydraulics) and Walter Neff (for electrical equipment, radio, and armament). The sea cruise of the twelve airplanes started in Venice, lead through the Adriatic Sea, the Ionic Sea, the Mediterranean Sea, through the Suez Canal, and into the Gulf of Aden. After this, they crossed the Arabian Sea to Bombay and then to the south, passing Colombo in Ceylon. The journey continued through the Strait of Malacca between the Malay Peninsula and Sumatra, past Singapore, then north across the South China Sea, arriving finally at the port of destination – Hong Kong. Because the German team members were sailing in a passenger ship that was faster than the freighter carrying the Hs 123A, von Winterfeldt and his comrades arrived in the Chinese metropolis before the Henschels, so they had several days to spend on sightseeing tours in and around Hong Kong.

Originally it had been planned for the Henschel Hs 123A to be assembled at Kai Tak, the airport of Hong Kong used by the British Royal Air Force. However, political pressures from Japan foiled this plan and, therefore, the boxes with the biplanes inside were loaded onto railway cars. In the following days, the train travelled north through Canton, Hengyang, and Changsha to their ultimate goal - Hankow near Wuhan. [According to German sources, the final destination of

these twelve Henschel Hs 123A was Hankow. However, according to Chinese sources the ultimate goal of this journey was the First Aircraft Fabrication Factory in Hengyang in the neighbouring province of Hunan.]

Around the middle of January 1938 (other sources say it was at the end of February), the German team obtained accommodations near the airfield and the Chinese Air Force provided an interpreter, Mr. Wang, a cook, Mr. Go with his assistant, and a chauffeur with a Ford motorcar. Shortly after that, under the supervision of the German technicians, Chinese workers started assembling the twelve Henschel Hs 123A-1 in a wooden hangar. Because of the ongoing war with Japan, the Chinese ground staff developed a special camouflage for this assembly hangar which was located adjacent to a small grove of trees. They chopped down trees and placed them around the hangar. All these trees were weighed down with stones at the lower ends. When the approach of a Japanese aircraft was reported, these trees – fast as lightning – the Chinese propped up the trees around the hangar to make a little forest.

After being assembled, each biplane was test flown by von Winterfeldt, who also was the representative of the Reichsverband der deutschen Luftfahrt-Industrie (RDLI = Association of the German Aviation Industry). At the same time as the Hs 123As were being assembled and test-flown, the training of Chinese pilots and ground crews on this aircraft type was started.

The following weeks showed that the Chinese pilots were still quite inexperienced. Accidents were inevitable. One Henschel Hs 123A-1 came back from a training flight and began to land. At that moment, a pedestrian crossed the landing strip and the pilot had to break off his approach. However, during the landing approach, the landing flaps of the Henschel had been lowered and the pilot, in his excitement, forgot to bring them back up. With its flaps down, the biplane could not reach flying speed and the Hs 123A hopped roughly over the landing strip and rolled – out of control – into the assembly hangar damaging the upper wing. A replacement wing was available and after a short time the damage was repaired and the aeroplane was put back into service.

Although other Hs 123A became unserviceable for a short time because of a technical problem, the headquarters of the Chinese Air Force was satisfied with their German Stukas. However, the Chinese pilots had ambivalent feelings for the aircraft. They found it difficult to keep the necessary speed for formation flying. Additionally, for most pilots of the Chinese Air Force it was strange to have radio equipment on board. Finally, in April 1938, all twelve Henschel Hs 123A-1 had been assembled and all test flights were finished by the middle of May. However, the training of the Chinese pilots lasted until the end of the same month.

The painting of the Chinese Henschel Hs 123A-1 as applied by the manufacturer was an overall flat coat of RLM 02 grau. In China, it was decided to leave this grey only on the undersides of the Hs 123A and to apply camouflage – looking a little bit like "worms" – to the side and top surfaces. The color of this camouflage has not been confirmed and could range from a darker grey-tone or ochre, to any brown color. White tactical numbers 1501 to 1512 were applied on the vertical tail. The national insignia consisted of the usual blue and white stripes on the rudder as well as the blue-white Chinese national insignia painted in the four usual wing positions.

After this paint work was finished, nine Henschel Hs 123A-1 with the numbers 1501 to 1509 was assigned to the Chinese 15th Squadron, while the remaining three aircraft were held in reserve or to be used for spare parts.

In June 1938 – after the completion of their work – the German team left on their homeward journey. However, on arrived in Hong Kong, where they were to continue their travel home by ship, the Chinese Air Force requested that some of them return to carry out some of the guaranteed work. Therefore, von Winterfeldt, Bauske, and Neffe flew back to Hankow on a Junkers Ju 52/3m of the airline company Eurasia, a subsidiary firm of the German Lufthansa. Some days later, the Chinese customers were finally completely satisfied. These last three members of the Henschel team arrived back in Germany in the middle of August 1938 and von Winterfeldt, the leader of this group, handed in his two reports “Die Abwicklung des Auftrages Ost” (“The Handling of the Order East”) and “Die Grundausbildung einer Staffel Henschel Hs 123A in China” (“The Basic Training of a Squadron Henschel Hs 123A in China”).

By this time, the nine Hs 123A-1 of the Chinese 15th Squadron had been in action for two month. In the second half of 1938 and for the following year, these dive-bombers flew repeated attacks against Japanese ships on the river Jangtse Kiang. In 1938, three attacks are known during which the bombers of the 15th Squadron dropped forty-eight 50-kg bombs

and were credited with damaging a Japanese destroyer. Later – after some losses – the Henschel Hs 123A-1 completed their career as training aircraft with the Chinese 6th Fighter Squadron.

Finally, it only remains to notice, that in those last years of the 1930s it was not unusual for Germany – just like the USA and some other countries – to deliver aircraft and weapons to China and to its war-opponent Japan simultaneously, which – unlike nowadays – apparently raised no questions.

Rudolf Höfling, Franz Koci Strasse 4/12/23, 1100 Vienna, Austria.

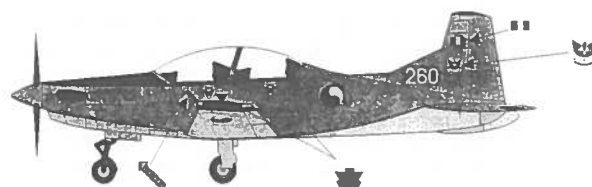
Captions for photo on page 110. (All photos are from the collection of Mr. Klaus Neff.) These photos show that most of published colour drawings of Chinese Henschel Hs 123A have been incorrect

1. This photo shows the camouflage scheme applied to the Chinese Henschel Hs 123A-1.
2. The missing headrest at this Chinese Henschel is noteworthy.
3. All twelve Henschel Hs 123A-1 ordered by the Chinese Air Force were assembled in Hankow.

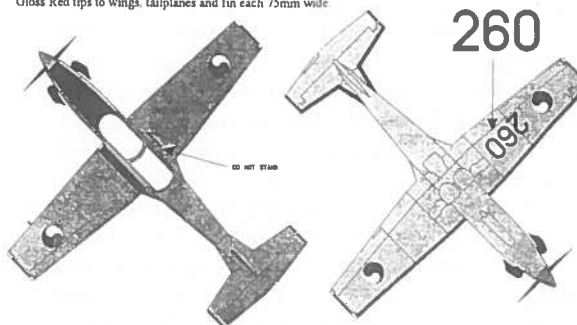
Irish Air Corps Update 2004

Max Decals 7215

(See review on page 141)



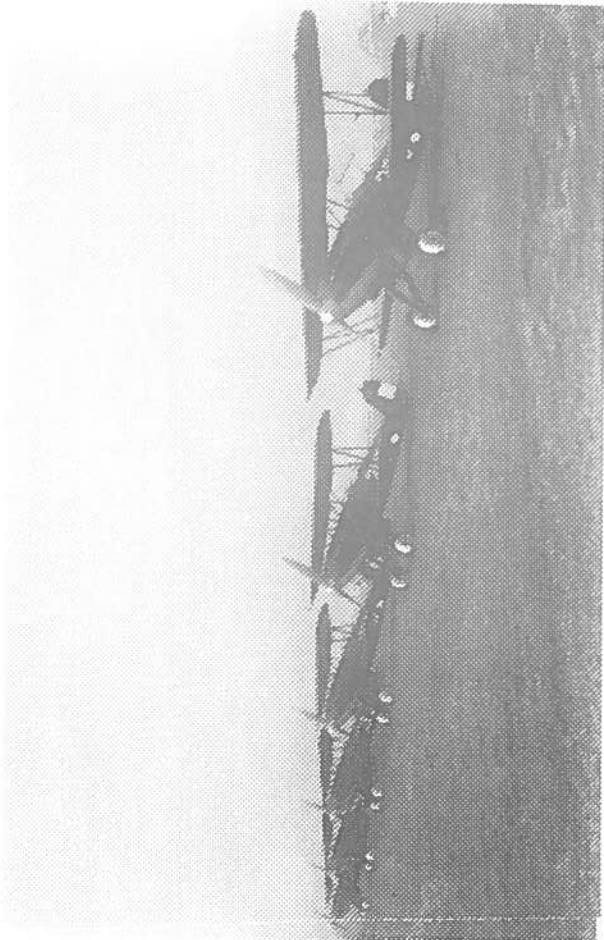
Upper surfaces Gloss Grey RAL7040
Lower surfaces Gloss Light Grey RAL7035 (Humbrol 196)
Gloss Red tips to wings, tailplanes and fin each 75mm wide



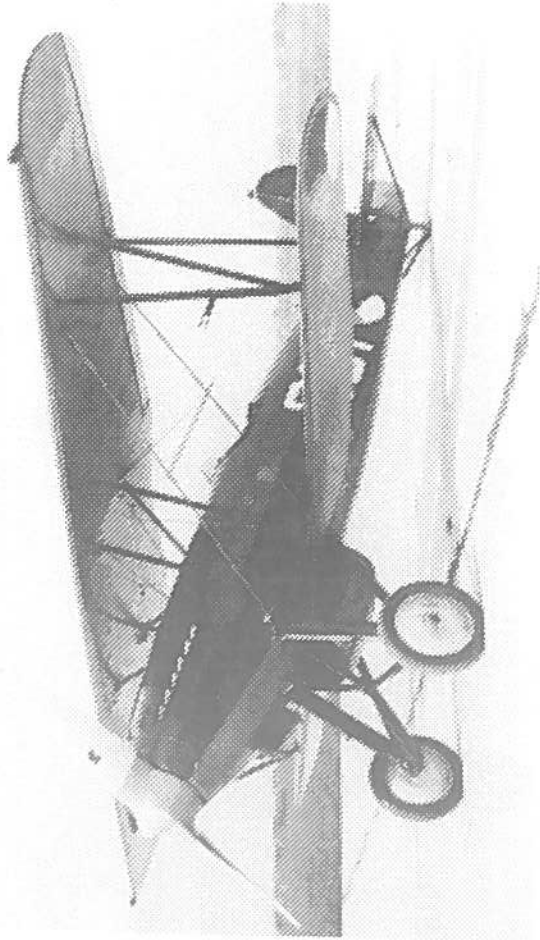
Bonus Decal: Bundesgrenzschutz SA330J Sept 1979.
First Helicopter to wear Garda markings during the Papal visit to Ireland in 1979.



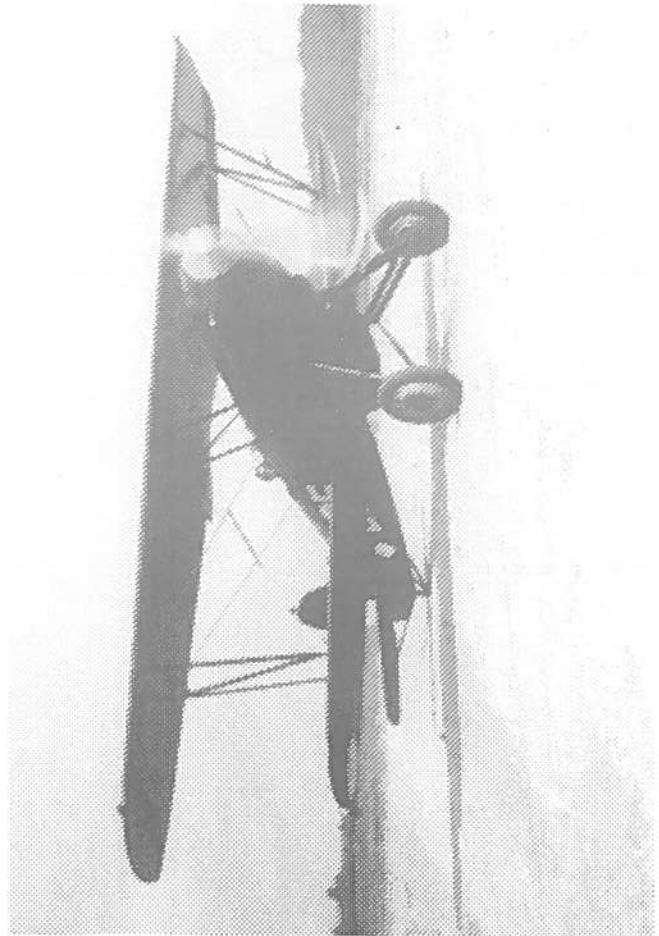
Note the modified main cabin doors and enlarged sponsors



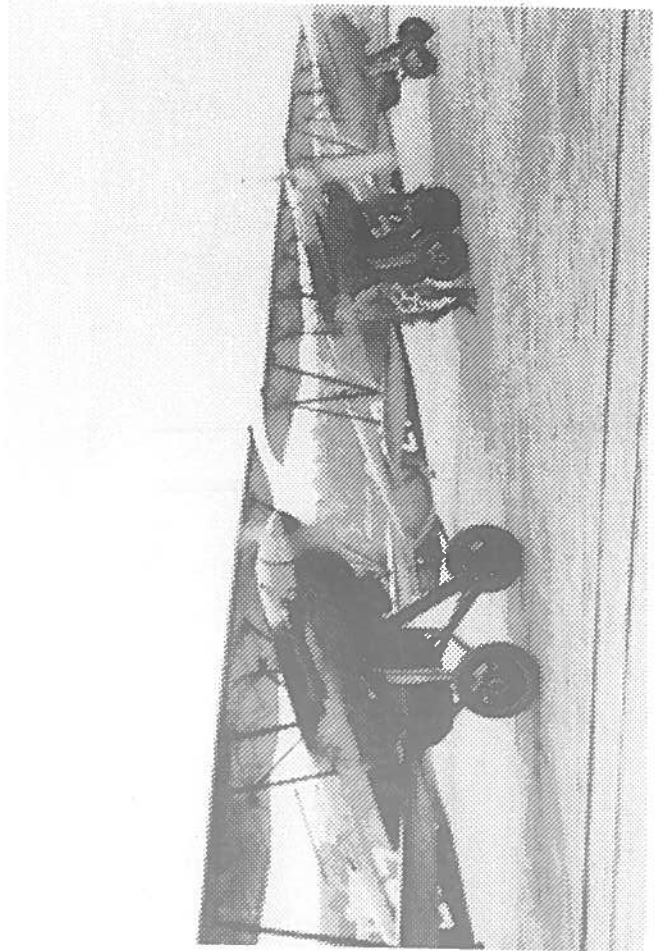
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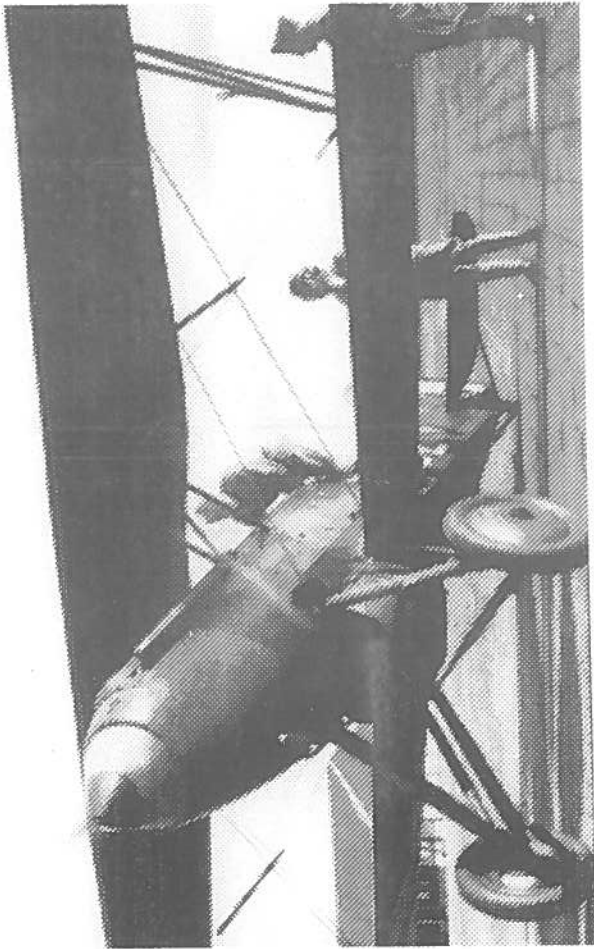
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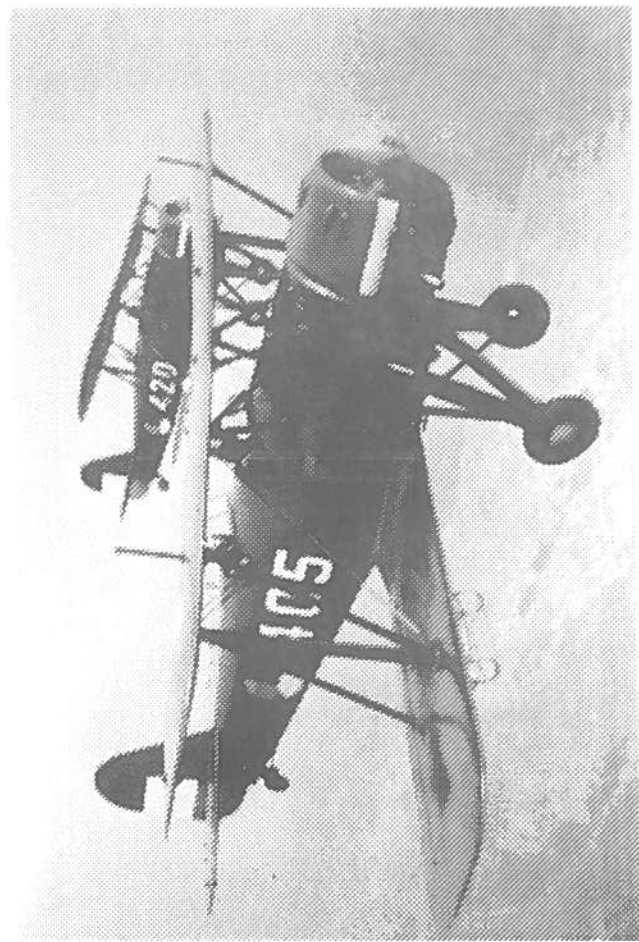
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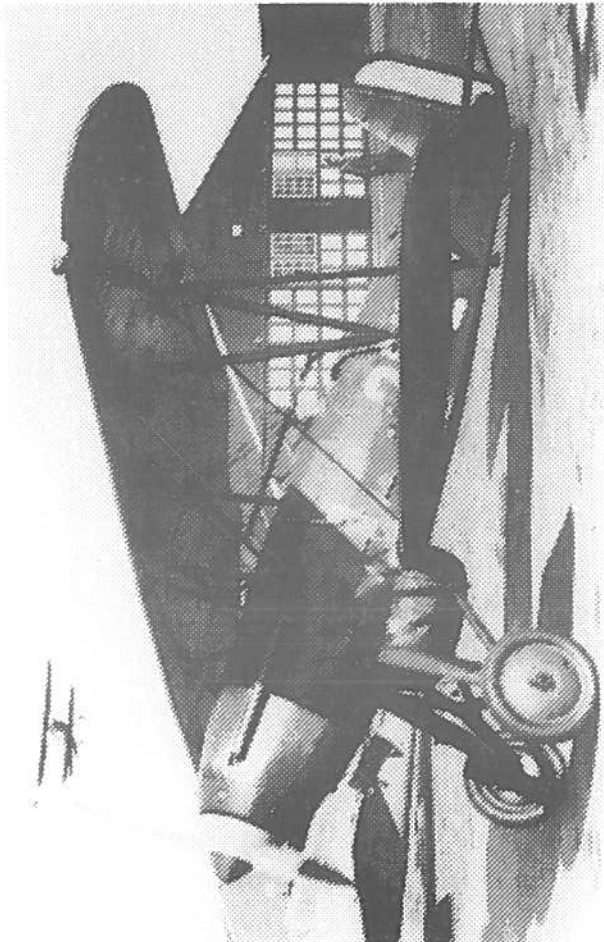
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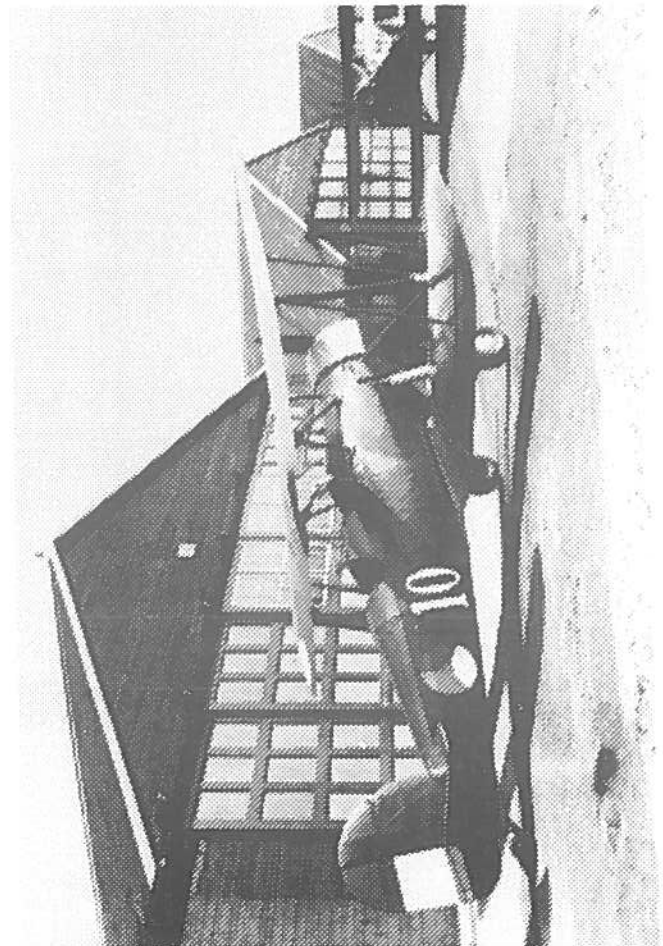
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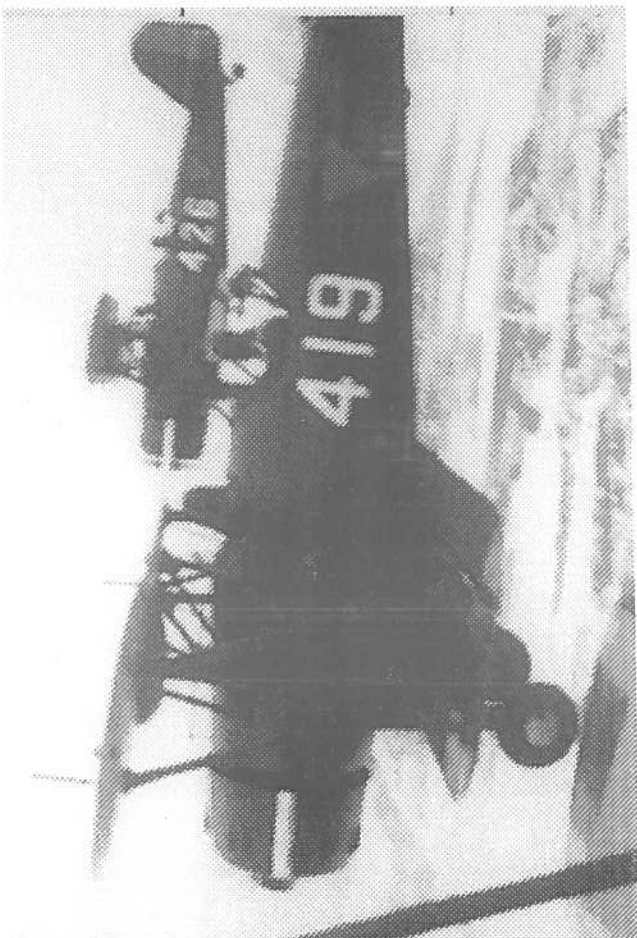
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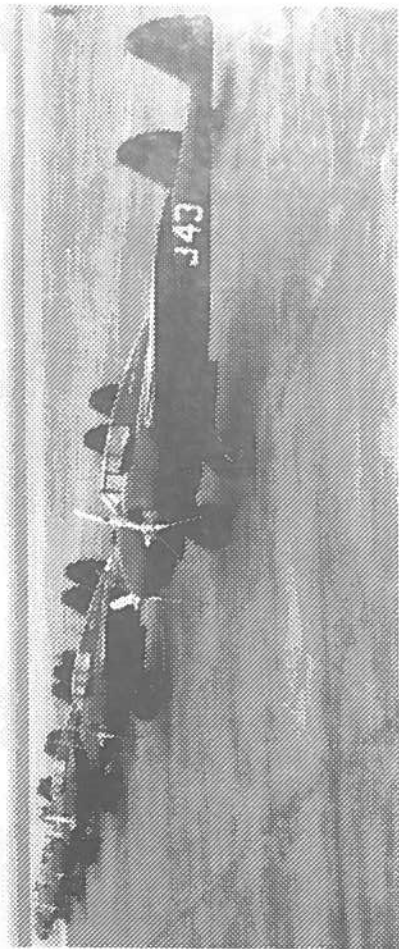
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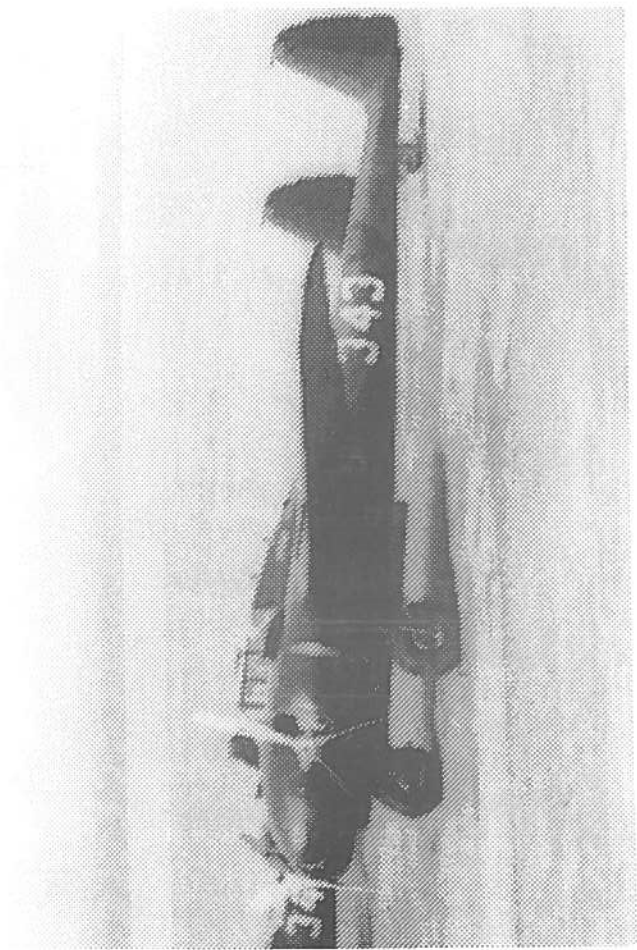
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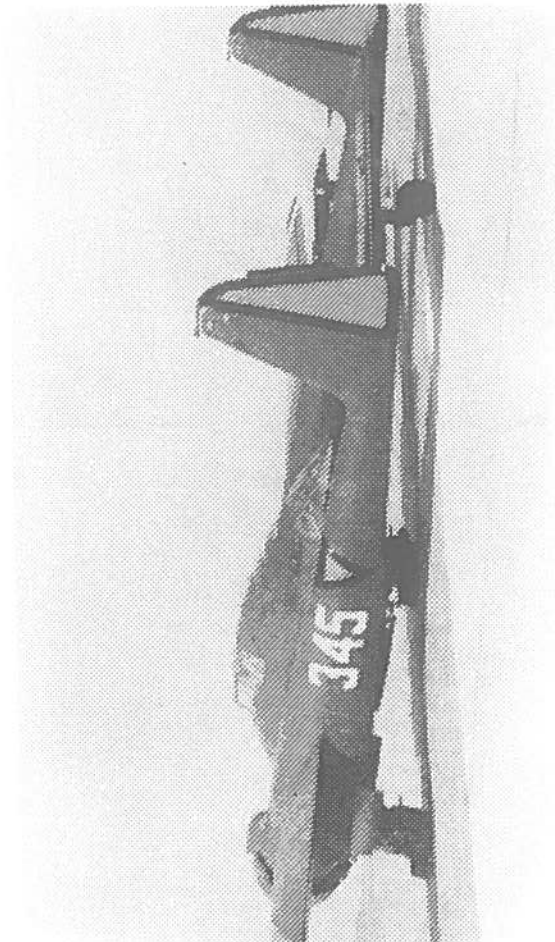
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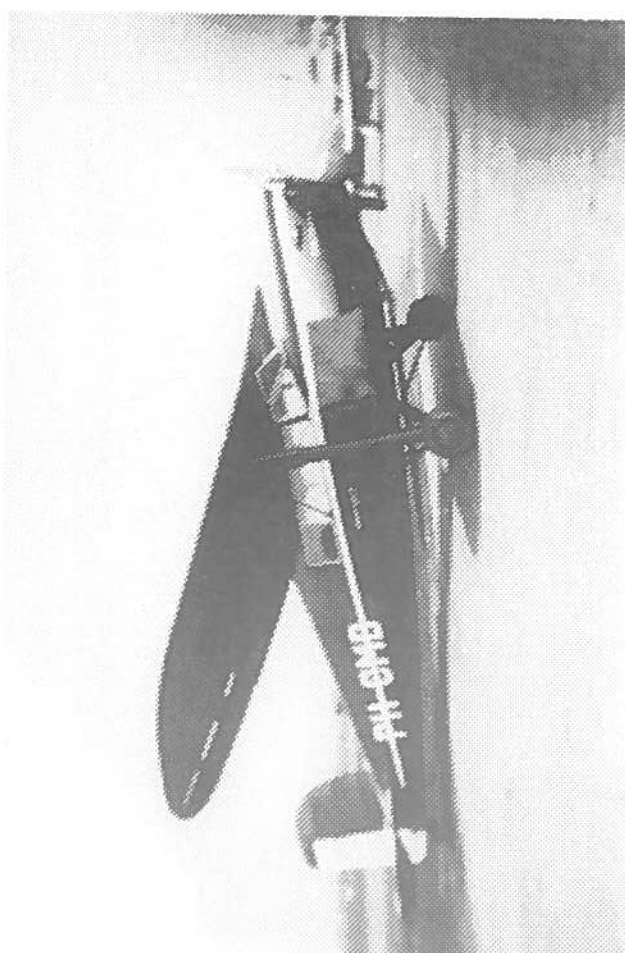
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Meidagen 1940: The Dutch Air Arms' Defense Against the German Invasion May, 1940 Part 3

[Author's Note: As related in Part 2, SAFO #110/#111, the Dutch *Militaire Luchtvaart* had been devastated in the first day's combat. At dawn on May 11th, the *ML* could muster only a dozen D.21 single-engine fighters at Buiksloot, three G.1 twin-engine fighters (with six under repair) at Bergen, two combat-ready T.5 medium bombers, and a squadron of eight C.10 biplane light bombers (See Note 1), plus about 18 C.5d observation biplanes. On the ground the Dutch forces were seemingly battling the Germans everywhere. In the east motorized infantry were sweeping across the rivers and plains approaching the Grebbe Line. Panzers were roaring through the southern provinces at lightning speed. In Rotterdam and around The Hague airborne troops were holding critical points, such as airfields and key bridges. Against these—and the supremely successful *Luftwaffe*—the brave air and ground crews of the Dutch air arm would be pitted—and, to use a Dutch phrase, “flew with death in their boots”—attempting to stem the Nazi onslaught. This installment is the rest of that story.]

Chapter 4 The Rest of The *Meidagen* –May 11th – 14th

"Warum leisten Sie Widerstand"
("Why do you oppose us?")

Oberleutnant (1Lt) Dietrich Robitzsch, Bf.109 pilot,
To Dutch captors after being shot down at
De Kooy Airfield, 10 May 40

Saturday, May 11th

The morning of May 11th found the Dutch infantrymen of I Corps valiantly attacking the pockets held by LtGen von Sponeck's 22nd *LL* Div. Overnight RAF raids, coupled with the previous day's action rendered Waalhaven unusable and the Germans began to reinforce the initial assault force by landing Ju 52/3m's in the large parking space of a sports complex southeast of Rotterdam, called Feyenoord. Reinforced with more troops and by the arrival of an airlifted mountain artillery battery, the Germans renewed their push to link up with their special detachment holding the Willems Bridge over the Nieuw Maas River.

Having virtually accomplished its initial objectives—the destruction of the *ML* and the establishment of air superiority over Holland—the *Luftwaffe* shifted many units to operations over Belgium where the first clash of German and French armor was soon to occur. Still, *KG.54*—which had been employed against Antwerp, other ports, and lines of communications the day before—was assigned targets in South Holland in support of the beleaguered airborne assault forces. They struck Dutch troops in columns on the roads and in their defensive positions, as well as hitting again the known *ML* airfields. Raids by *KG.4* sank two passenger liners—the 28,290-ton *Statendam* and the 15,450-ton *Veendam*—in Rotterdam harbor. Throughout the day *JG.26* (with *II/JG.27*) enforced the *Luftwaffe's* aerial supremacy with repeated fighter sweeps.

To challenge them the *ML* had a meager force of 12 D.21s at the secret Buiksloot auxiliary field and three G.1s at Bergen. Through the night *ML* ground crews worked feverishly to repair damaged and disabled aircraft and succeeded in making a fourth G.1 (#325) operational by morning. It and the recent arrival from the Fokker factory (#303) were launched at 0900 hours to reconnoiter Waalhaven airfield. They reported it completely out of commission.

Meanwhile an order to deploy to Schiphol had been received and two more freshly repaired G.1s (#308 and #322) took off at 1000 hours and were joined during the afternoon and evening by the first pair. Late that afternoon this detachment of 4 *JaVA* was ordered to attack Ju 52/3m transports reported landing on the roads between Delft and Rotterdam. Two G.1s (#303 and #322) took off at 1600 and performed repeated strafing attacks on the stationary targets, destroying several.

With the reports from the morning reconnaissance confirming it unnecessary to resume attacks against Waalhaven airfield, the Dutch High Command shifted its attention to the German-held Willems Bridge in the middle of Rotterdam. Having already taken it under artillery and machine gun fire, the Dutch army found it did not have the means to destroy it. Thus, an attack by the two remaining T.5 bombers (#850 and #856) was ordered. The pair took off from Schiphol at 1000 hours with an escort of three D.21s (#213, #224, #236) launching from Buiksloot. The bombers made a level bombing attack from approximately 1,000m (3,300ft) and all bombs missed the bridge.

Three hours later they returned, each armed with eight 50kg (110 lb) bombs and again they were escorted by a trio of D.21s. The small formation departed Schiphol at 1300 hours with the bombers flying at 1,000m and the escort—led by 1Lt Focquin de Grave—flying low, at 60m (200 ft), in order to surprise from below any enemy interceptors. Arriving over Rotterdam unimpeded, the bombers made diving attacks from on the bridge, but again all bombs missed their target.

On the return flight the bombers were intercepted by a *jagdstaffel* (from *I/ZG.2*) of a dozen Bf 110C's. Lt Focquin de Grave (in #213) spotted the attack and quickly climbed, bravely engaging six of the big Messerschmitts. After shooting down one, he himself was hit by one of the others. Wounded and with his fuel tank riddled, he dove away to attempt a forced-landing

along a road, but his wingtip clipped a pole and twisted the riddled lighter fighter into a wreck.

The tail gunner in one of the Dutch bombers (#850), Pvt J. Wijnstra, succeeded in flaming another of the attackers before his own plane was mortally damaged and the crew forced to bail out. The second bomber (#856) ducked into some clouds, eluded its pursuit and safely returned to Schiphol. Thus, by the second day of action, the *BomVA* was down to a single, solitary serviceable twin-engine bomber. One of the escorts, Sgt J. "Koos" Roos (in #225), became separated from the formation and was attacked repeatedly by three of the Bf 110s, finally parachuting from his stricken Fokker, also badly wounded. (Note 2) The third D.21, Sgt G. Berger (#242) returned safely to Buiksloot.

While the *StratVerVA* still had eight operational C.10s, for some reason it was not tasked by the High Command. Meanwhile the three surviving tactical reconnaissance units flew only eight C.5d sorties. Ironically, on one of them flown over the Grebbe Line, the C.5d (#639) was hit not by German fighters, but by Dutch army AA fire and had to make a forced landing near Ziest. Overshadowing this error was the fact that Dutch AA batteries remained a potent force, accounting for three Bf 109E's shot down, all of the German pilots becoming POWs, at least of the time being. (Note 3)

The Dutch High Command realized that its air force had been decimated in the first day and was taking drastic measures to try and bolster its two remaining fighter units. First, it agreed to accept six serviceable D.17 biplane fighter-trainers from the Fighter School at De Vlijt airfield, Texel, into the *Combined JaVA* at Buiksloot. However, shortly after take-off from Texel, they were fired upon by Dutch AA batteries defending the Den Helder naval base and two of them were forced to do emergency landings, one of them (#202) crashing in Balgzand Polder, reducing these antiquated reinforcements to four aircraft.

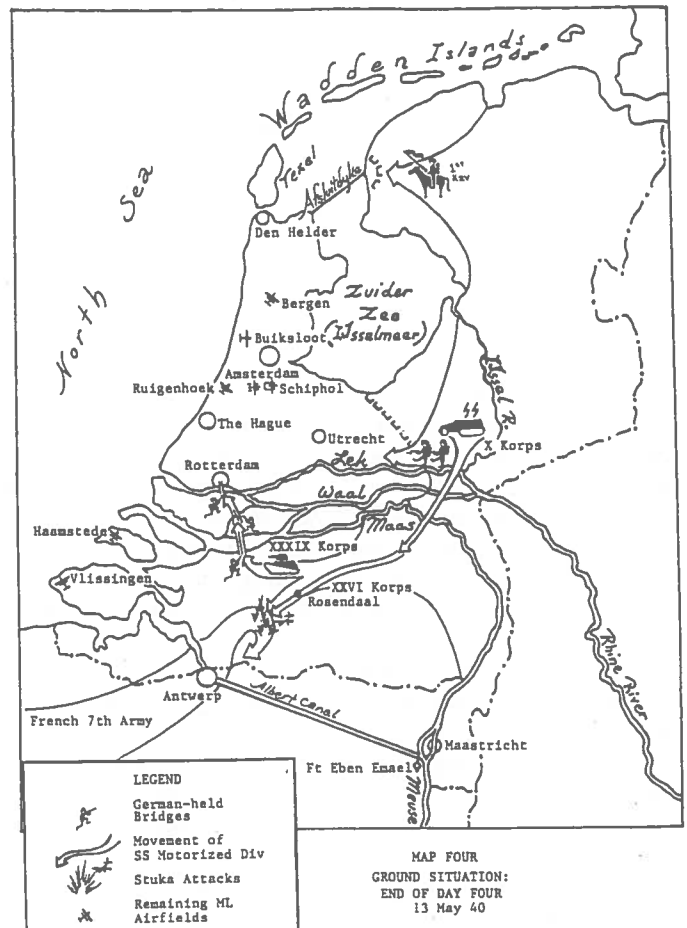
During the day efforts were also made to recover the three *3.JaVA* G.1s that had landed on the beach near Oostvoorne the day before. A single C.5d (#618) from *IVe Verk Gp* flew in about 150 liters of fuel (30 gal) and a starting crank—but it proved to be the wrong type.

Meanwhile *Luftwaffe* attacks on *ML* airfields destroyed several auxiliary aircraft. While the flying school at De Vlijt attempted to use its assigned fighters—one G.1, two D.21s and one remaining D.17s—for its own air defense, the fact that the base was on an island precluded any type of early warning information and, consequently, it was subjected to several surprise attacks. At 1530 hours a strafing attack damaged one of the D.21s and an FW 58B-2. The follow-up attack at 1715 destroyed both of the FW 58B's, three of the new FK-56 advanced trainers, the NA-27 "Yale" trainer and the last D.17. (Note 4) Haamstede was attacked four times on this day, one of the raids destroying two C.5d's and several buildings.

Beneath the umbrella of aerial supremacy supplied by the *Luftwaffe*, north of the Dutch Rhine (the Waal), German infantry met and began to battle the Dutch defenders along the Grebbe Line. South of the Rhine and the Maas, the 9th Pz Div, leading two motorized SS regiments, advanced westward with seemingly incredible speed, approaching Tilburg without noticeable resistance.

Meanwhile, approaching this city from the southwest, another military force was advancing. In an attempt to establish a "continuous front" from the Maas River southward to the end of the Maginot Line, the French Seventh Army under Gen Henri

Giraud had moved up from around Dunkirk, across Flanders and into southern Holland, intending to link up with the Dutch *Veldleger* at Breda. However, the Dutch III Corps had already begun its precipitate withdrawal across the Maas into *Vesting Holland*. Instead of friendly Dutch troops, the French advance elements—the fast 1st Light Mechanized Division—unexpectedly ran into the German *panzers* near Tilburg. The advantage of surprise was with the Germans and the French forces, caught advancing in unfamiliar territory in disarray, were quickly put to flight. The German Eighteenth Army quickly played upon another advantage: air power, calling in *Stukas* and *Zerstörers* which savagely harassed the fleeing French with bombing and strafing. Gen Giraud quickly retired towards Antwerp, Belgium, and with him went the only possibility of the Allies coming to the aid of the Netherlands.



Sunday, May 12th

On Whitsun morning, 1940, the situation on the ground for Holland was almost hopeless—and after only two days of fighting. In the north, the German cavalrymen had crossed the breadth of Friesland and reached the east coast of the Zuider Zee. During the day, in heavy fighting, German infantry of the 207th Div began to assault the Grebbe Line at Rhenen, where the Dutch defensive line was anchored to the Lek River. But south of the Dutch Rhine (the Waal), however, the death knell for Holland was sounding—the 9th Pz Div reached the German paratrooper-held bridges at Moerdijk.

This morning found only one G.1 serviceable at Schiphol airport. It (#325) took off in the early morning hours to escort two C.5d's (#594 and #612 from *le Verk Gp*) which were ordered to reconnoiter northeast Holland to determine the extent

of the German advance towards the Afsluitdijk, the dyke that ran from Friesland to Den Oever on North Holland, closing off the Zuider Zee from the sea. If allowed to cross this dyke, the German forces would enter the province of North Holland from the north and *Vesting Holland* would be fully invested on three sides by the invaders. This mission returned safely and reported that the German forces were, in fact, drawing very close.

Consequently, that afternoon, four C.5d's of *IIIe Verk Gp* were launched from Middenmeer to attack the advanced units of the German 1st Kav Div nearing the Afsluitdijk. However, approaching their target, the Dutch biplane pilots spotted patrolling German fighters and beat a hasty retreat.

Even later that afternoon the last T.5 (#856) was also launched in a raid against the German 1st Kav Div which now had arrived at the east end of the Afsluitdijk and begun to attack Dutch army positions there. The T.5 took-off and was joined by a single D.21 from Buiksloot and they headed northeast. But they got only about 30 miles before they, too, ran into a patrol of a dozen Bf 109E's and quickly abandoned the mission, diving into clouds and turning back, descending to almost ground level and running for home. They escaped safely and landed back at their home fields while the Dutch defenders bravely held off repeated attacks by the dismounted German cavalry.

The Dutch High Command also sought to attack the German paratroopers holding out at Delft and Rotterdam. That morning four C.5d's (#592, #605, #619, #621) of the *IIIe Verk Gp* were dispatched with an escort of three D.21s (#212, #221, #236) to bomb the besieged enclave of *fallscirmjäger* dug in near Delft. Only two of the pilots could locate their targets, however, the other pair bringing their bombs home.

That afternoon a similar formation of four *StratVerVA* C.10s (#705, #711, #712, #713), escorted by six D.21s (#212, #219, #221, #224, #235, #244), were dispatched to bomb the Germans' landing ground at Feyenoord playing fields. The large formation arrived overhead unopposed and split up, two C.10s and three D.21s bombing and strafing Feyenoord Field and the other pair of C.10s and three D.21s doing the same to the clutter of German planes still scattered upon Waalhaven. The attack was a total surprise to the Germans and all of the Dutch aircraft returned safely.

Meanwhile, the *4.JaVA* and the *Verkenning Groepen* were heavily engaged over the Grebbe Line, trying to help stem the persistent German pressure in the Rhenen area. The German infantry had crossed the water defenses before the Grebbeberg and were pushing further and further up the hillside, driving the Dutch defenders back.

By that afternoon, two more G.1s were made combat ready and the three-ship formation (#303, #322, #325) took off at 1645 hours from Schiphol to strafe German troops now penetrating the Dutch lines on the Grebbeberg. They did so with some success, but German light anti-aircraft fire was intense and all three were forced to land at Soesterberg with battle damage. One (#325), in fact, was damaged beyond repair (but was flown back to Schiphol the next day anyway), the second one (#322) being repaired and returning to Schiphol later that evening.

Following the G.1s, at 1700 hours the *Ie Verk Gp* launched its attack: its single C.10 (#719) and four C.5d's (#594, #612, #646, #650) escorted by three of the D.17 biplane fighters (#205, #209, and #210). Their mission was to bomb and strafe a German artillery battery shelling the Grebbeberg from Wageningen. One C.5d (#612), piloted by the formation leader, 1Lt H. C. Heideman, bravely took on a German flak battery and

put his four 50kg bombs on target, but in turn was hit by flak from other enemy guns and had to crash-land at Echteld. The remaining aircraft landed at Soesterberg, one C.5d (#650) and two D.17s (#209, and #210) being disabled there.

Two hours later, three C.5d's (#603, #637, #652) from *Ive Verk Gp* also attempted to attack the advancing German forces. By this time, however, the *Luftwaffe* had positioned Bf 109E's over the Grebbeberg. These intercepted the slow, ungainly C.5d's and succeeded in damaging one as the trio turned and fled. A similar three-ship formation (#592, #605, #619) from *IIIe Verk Gp* was not so fortunate. The German fighters (*Stab.II/JG.27*) were quickly able to shoot down two of the Fokkers (#592 and #619) with one pilot—Sgt A.J.M. van Liempd—killed, one observer captured and the other two crewmen badly wounded.

In addition to these offensive missions, the *Verkenners* flew eight reconnaissance sorties. The *Combined JaVA* provided escort to one two-ship recon mission and during the day lost two D.17s (#203 and #207) and a D.21 (#218) in operational accidents.

For the *ML* units, this was the most active day since the first day of the German attacks when 150 sorties were flown, most of them fighter air defense missions. Having spent much effort on the 11th repairing aircraft and recovering from the initial shock and devastation of the initial attacks, the *ML* mounted a total of 69 sorties, 30 of them on ground attack missions in five different raids. But despite the gallant efforts of the *ML* aviators and the staunch defense of the *Veldleger* along the Grebbe Line, south of the Dutch Rhine disaster had overtaken Holland. By the end of the day Moerdijk had fallen completely to the German *panzers* and the steel ring around *Vesting Holland* had closed. The 9th Pz Div drove through Dordrecht and made contact with the airborne troops south of Rotterdam.

Luftwaffe support of the Eighteenth Army was quickly being redirected to the south, von Richthofen's *Fliegerkorps VIII* being reassigned to *Luftflotte 3* to aid Rommel and Guderian's *panzers* crossing the Meuse at Dinant and Sedan. Having survived the airborne assault operations with minimum casualties, *KGzbV.1* was also reassigned to *Luftflotte 3* to aid in the forward movement of the shorter-ranged Hs.123, *Stuka* and fighter units. However, the decimated *KGzbV.2*, would shortly have to deactivate its 11th and 12th Groups, shifting its few remaining Ju.52/3m's and crews to the 1st and 9th *Gruppen*. These changes left *Luftflotte 2* with a single subordinate formation, *Fliegerkorps IV*.

Monday, May 13th

By the following morning the situation for *Vesting Holland* had become grave. German infantry forces were pushing west from Rhenen, through the breach in the Grebbe Line, advancing towards Utrecht. Gen Winkelman's II and IV Corps were trying desperately to regroup and form a new defensive line.

In an attempt to give the retreating Dutch *Veldleger* time to reestablish and effective defense before Utrecht, the *ML* launched its single largest offensive mission. At Bergen, four G.1s had finally been repaired and this morning two of them (#318 and #321) took off to escort five D.21s and four C.10 reconnaissance-bombers attacking German artillery positions and motorized vehicles just west of Rhenen. (Note 6) The attacks took place unopposed and as the G.1s returned to their base, they surprised a three-ship formation of Bf 109E's from *1/JG.26*, 2Lt

Anthonie van Ulsen (in #321) claiming one shot down. Both of the G.1s were badly damaged by flak but returned safely to Bergen airfield.

The morning's mission against the advancing German forces, while having little material effect, boosted the morale of the fatigued and flagging *Veldleger* so much that the High Command ordered the mission repeated at midday. Four C.10s and five D.21s (Note 6) returned but due to a shortage of ordnance, were limited to strafing passes with machine guns. This formation as well recovered safely to their home bases.

Meanwhile, the other pair of repaired G.1s was flown to Schiphol, but the landing gear of one (#310) failed to extend and the crew was forced to bail out. The other aircraft (#315) landed safely and was soon joined by another (#303) which had been repaired at Soesterberg. (It had been on the three-ship strafing attack the day before.) Also returning from Soesterberg on the 13th of May were the C.10 and three surviving C.5d's of the *Ie Verk Gp*. They flew on yet another raid before recovering to De Zilk airfield near Hillegom while the single remaining D.17 (#205) also landed at Buiksloot.

Almost at first light, Haamstede was once again attacked, this time by 20 Bf 110's (I/ZG.1) which strafed and destroyed every aircraft there, save one. (Note 7) The solitary, remaining C.5d (#652) flew to Middenmeer to join *Ie Verk Gp*. At Ypenburg, the airfield was finally cleared enough of the debris of war that it became useable again. While ten C.5d's and FK.51s were flyable, only two of the *Ile Verk Gp*'s Fokkers could reach the landing field and these were flown to Ruigenhoek as well. Most of the *Ile Verk Gp*'s personnel had already been transferred to the *IIle Verk Gp*, but nonetheless chronic fatigue had set in by the third day of combat operations. Because of this, the commander of 2.LvR decided to reduce his force to two squadrons, the *Ie Verk Groep* at Middenmeer and the *IIle Verk Gp* at Ruigenhoek, and to have them operate on alternate days. Efforts were made to obtain additional C.5d aircraft from those damaged at Hilversum, Soesterberg, and Ockenburg, but to no avail. Meanwhile, the *Ie Verk Gp* evacuated Middenmeer for De Zilk, another *ML* auxiliary field, its three remaining C.5d's and one C.10 arriving mid-morning.

Meanwhile Vlissingen was strafed again, but the Bf 110's (II/ZG.1) again failed to do any appreciable damage, losing one *Zerstörer*, the crew both being killed in the crash. (Note 9)

To the south, the German reorganized themselves for the final assault on *Vesting Holland*. The *XXVI Korps*, which had been responsible for piercing the Peel Line and the precipitate collapse of Dutch defense southern Holland, continued to exert pressure against the French Seventh Army before Antwerp. To do so, it retained its 256th Inf Div, was given the *SS Verfügungs* ("Expeditionary") *Motorized Division* and this small corps pushed southwest from Roosendaal. The *XXXIX Korps* headquarters (LtGen Rudolf Schmidt) was brought forward and was given command of the 9th Pz Div, the *SS Motorized Regiment "Leibstandarte Adolf Hitler"* ("Bodyguards of Adolf Hitler"), the 254th Inf Div and the airborne units south of Rotterdam. This "new" corps was charged with breaking through the Dutch defenses in Rotterdam. In the center of this city, the special detachment of the 16th Inf Reg was still holding the Willems Bridge, but this force was exhausted and down to only 60 men. They remained under intense machine gun and artillery fire from the Dutch forces surrounding them, but the bridge itself was still virtually undamaged.

In an effort to interdict the German *panzers* and truck-borne infantry rolling north towards Rotterdam, the *ML* launched its last T.5 (#856) on an attack on the Moerdijk bridges. Armed with two 300kg (661lb) delayed-fuse bombs and taking-off from Schiphol at 0519 hours, the T.5—commanded by Lt Bernardus Swagerman who had successfully bombed the German transport aircraft at Ockenburg airfield on the opening day of the battle—picked up an escort of two G.1s and headed south at low altitude. The three-ship formation, luckily, encountered no opposition on its ingress and after climbing to 1,000m (3,500ft), Lt Swagerman made two passes over the target. Unluckily, the first bomb splashed harmlessly in the river and the second, although it hit alongside a bridge piling, failed to explode!

The three-ship quickly dived for minimum altitude and ran for home but they were soon intercepted by nine Bf 109E's (4/JG.26). Led by the squadron commander, *Oblt* (1Lt) Karl Ebbighausen, the Messerschmitts bored through the hail of bullets from the tail gunner and riddled Swagerman's T.5 with 20mm cannon fire, sending it crashing to the ground in flames with the loss of all aboard. A low altitude fight with the G.1s ensued and two minutes later one of the Dutch fighters, flown by 1Lt P. C. Schoute, was shot down by 1Lt Ebbighausen as well. (Note 8) The second G.1 safely escaped.

For his daring determination and selfless sacrifice, Lt Swagerman was posthumously awarded the *Ridder 4^e Klasse der Militaire Willemsorde*. Additionally, the T.5's pilot, 1Lt W. F. Anceaux, and the tail gunner, Pvt J. Wijnstra who had shot down a Bf 110C on May 11th, were awarded the *Vliegerkruis* ("Flyers Cross"), the Dutch equivalent of the RAF or USAAF Distinguished Flying Cross. Lt Schoute was also posthumously awarded the *Vliegerkruis*.

Unimpeded, the German armored and motorized forces continued to cross the Maas and began arraying themselves for an assault upon Rotterdam. Elsewhere, the *Veldleger* was flagging: its main force was heavily engaged in the east blocking the advance upon Utrecht and II Corps spent itself in a futile counter-attack in an effort to plug the breach in the Grebbe Line. This gallant effort was spoiled by the arrival of—and a pounding by—a group of 27 Ju 87 *Stukas* (from IV(St)/LG.1). Under the horrendous dive-bombings and repeated strafings, the Dutch forces broke and fell back.

Their reserves—the two divisions of I Corps—were exhausted as well, still engaged against the paratroopers and air assault troops concentrated in three fiercely defended pockets around The Hague. The situation was so desperate that Queen Willemina and her government appealed to Britain for help. But the only thing that the British could do was evacuate them. On the evening of 13/14 May, the H.M.S. *Hereward* and another Royal Navy destroyer spirited the Royal Family and the Cabinet to safety.

Tuesday, May 14th

During the night the technicians at the Fokker factory and *ML* ground crewmen finished preparing three of the Wasp-powered G.1s that had originally been built for export. Purchased by the Dutch government to bolster the *ML*, the six had been accepted—and more were ready for delivery—to form the second squadron in the 2.LvR's *Jachtgroep*. Now they were finally being fitted with armament of four M-36 machine guns, and after a two-hour test flight, three of them (#342, #343, and #346) were taken on charge by 4.JaVA.

They formed up with two other G.1s (#308 and #322) to be launched on an offensive patrol, covering the retreat of the *Veldleger* from Utrecht, at 0705 hours. One of them (#346) aborted its take-off after colliding with another. The rest took-off and flew a low altitude sweep over Utrecht, Wijk bij Duurstede, and Rhenen. Although they sustained no battle damage, one (#308) was found to have badly bent propellers as a result of hitting trees while flying at low altitude and the two remaining export G.1s were found to have unserviceable landing gear. Meanwhile, at Bergen airfield, the last two G.1s damaged in the initial attack were nearing repair but the base was ordered evacuated and they were abandoned there.

Similarly, the *StratVerVA* dispatched its seven combat worthy C.10s to Ruigenhoek to join the *IIIe Verk Gp*. From there the *StratVerVA* launched two C.10s to reconnoiter the embattled Rotterdam area. One (#706) returned badly shot up by German flak. The other (#705), crewed by men who realized that the war for Holland was almost over—and lost—set course to Great Britain and became the first Dutchmen in the Free Dutch Forces.

Additionally, the pilots and ground crews of the three *3.JaVA* G.1s still parked on the beach near Oostvoorne returned this morning with everything needed to get the fighters airborne. To their dismay, they found all three airplanes burning—the result of a Bf 109E strafing attack only minutes earlier.

Things were not much better at Buiksloot where the *Combined JaVA* was down to five D.21s combat ready. These were launched on a morning patrol to cover the units of the *Veldleger's* II Corps retreating from around Utrecht. The fighters were ordered moved to Schiphol and four of the D.21's landed there after the patrol. The fifth (#236) was forced to do an emergency landing because of engine trouble. Meanwhile at Buiksloot, ground crews worked feverishly to bring another four up to operational standards and get them to Schiphol. Additionally, a tenth D.21 (#243) was made ready at the Fokker factory on the airfield. That afternoon a sweep of five D.21 fighters was flown, but to no avail.

The *Verkenning Groepen* launched only a few sorties. A pair of *IIIe Verk Gp* C.5d's (crewed by members of *Ile Verk Gp*) made reconnaissance flights as far east as Arnhem. They found the *Veldleger* was now on the verge of collapse. The tanks of the 9th Pz Div had fought their way into the southern outskirts of Rotterdam and were poised to crush the Dutch defensive positions in the center of the city—if they could get across the 435-yard (400m) wide Nieuw Maas River.

The defenders were prepared to fiercely resist the assault. The Dutch commander, Col Philip Scharoo, had a total of 18 battalions supported by artillery arrayed in depth along the

northern shore. Anti-tank guns covered the Willems Bridge and the adjacent railroad bridge and there were two armored cars in reserve. However, there was a shortage of AA batteries: two had been lost at Waalhaven and one was malpositioned at Vlaardingen, its field of fire obscured by the thick smoke of the burning Pernis oil refinery. The fourth, along with two light AA batteries with ten 20mm Oerlikons, had withdrawn towards The Hague. All that remained was a platoon of four AA machine guns and these were emplaced to repel the anticipated ground assault.

The German assault was scheduled to begin at 1:50pm (Amsterdam time), but to avoid bloody, house-to-house street fighting, the Nazi commander, LtGen Schmidt, sent a message to Col Scharoo that morning warning that if the Dutch forces did not surrender, he would be forced to use measures “that could result in the complete destruction of the city.” Col Scharoo, stalling for time, was evasive and LtGen Schmidt, after delaying the assault, grew impatient and issued an ultimatum at 1:20pm, calling for surrender in three hours or else. Meanwhile, to make the point, 100 He 111s of KG.54, the “*Totenkopf*” *Geschwader* (the “Death’s Head” Wing—a sinisterly appropriate name), loaded with general purpose bombs, had taken-off and by noon were heading towards the city.

On the ground, Col Scharoo, after consulting Gen Winkelman, had come to terms. But in the air, the huge force of Heinkel bombers split into two formations and, unopposed by the ten remaining *ML* fighters, began their bomb runs. One formation approached parallel to the river and the other arced south to attack the city center at right angles to the first. The bombers came in at 700m (2,300ft) and red flares were launched from the ground to signal them to abort their attacks. The formation to the south saw the flares and veered away to bomb British troop concentrations near Antwerp. But the other, tragically, proceeded.

At 1:20pm some 57 He 111s unleashed 97 tons of bombs on the old city center, killing 814 civilians and causing huge fires. The center of the city was gutted, leaving 78,000 people homeless. Whatever thoughts the Dutch had of continuing to resist were vaporized in that event. For Holland, the war was over.

Gen Winkelman concluded a ceasefire and then, in the absence of his Sovereign, signed the instrument of capitulation at 0930 hours on May 15th, surrendering all the forces under his command.

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End Notes

1. The following aircraft were combat ready at dawn on May 11th:
D.21s: #212, #213, #218, #224, #225, #235, #236, and #244;
Non-operational were: #219, #221, #240, #242, and #243,
G.1s: #303, #308, and #321; Non-operational were: #315, #322,
T.5s: #850, #856; Non-operational at Haamstede was #858, where it was destroyed May 11th.
C.10s: #700, #705, #706, #711, #712, #713, #714, #715
2. The fanciful story of Sgt Roos' combat has been related in several otherwise reputable publications. This lurid tale has taken on somewhat mythical proportions in Dutch aviation history, including the highly improbable downing of one Bf.110 by Roos' jettisoned canopy and another instance of Roos emerging from a cloud in firing parameters on one of “the remaining Bf.110s”. Bingham's *Blitzed! The Battle of France, May-June 1940*, Appendix 5, pg 223, reports the

loss of two 1/ZG.2 Bf.110s and they are probably most accurately credited to Lt Focquin de Grave and the T.5 tail gunner, Pvt J. Wijnstra.

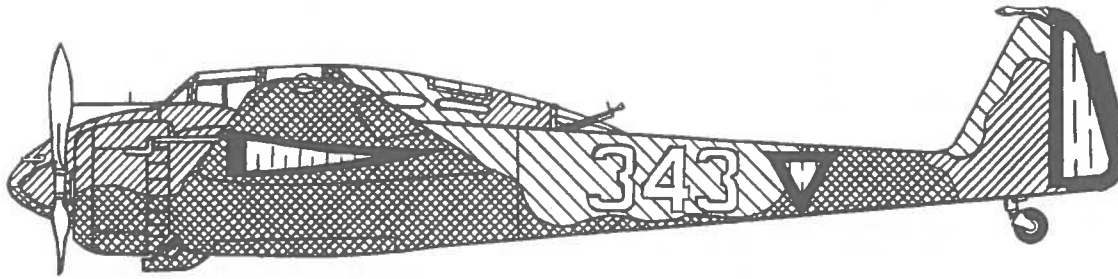
3. The German aircraft shot down by Dutch AA fire on May 11th included:
Bf 109E of 6(J)/TrGr.186 north of Den Helder, pilot Uffz Werner Haase, POW
Bf 109E of 5/JG.26 south of Zuider Zee, pilot Oblt Hubert von Hotley, POW
Bf 109E of 4/JG.27 near Tiel, pilot Lt Lothar Scheffler, POW (Bingham, 223, says “by D.XXI”)
He 111 (unit unkn) near Gorinchem (See Photo F, SAFO #110, pg 50)
He 111 of 3/KG.54 (or KG.4) near Hulst; pilot Uffz B. Blankenfuland; crew 1 KIA, others unkn
He 111 of 2(F)/ObdL at Haamstede; pilot Uffz R. Wunderlich KIA; crew: 2 KIA and 1 POW

- Hs 126B of Aufklst/II Flak Korps near Piershil; crew: Lt Alfred Franke and FW Joachim Lindner
 Ju 52/3m of IV/KGzbV 1 near Waardenburg; crew and paratroopers POWs
 Ju 88A-2 of KG 30 crash-landed on beach near Renesse, Schouwen-Duiveland
4. Aircraft destroyed at Texel on May 11th included: D.17 #204; FK-56s #83, #85 and #86;
 FW 58B's #196 and #197; and NA-27 #997.
5. The German aircraft shot down over Holland on May 12th included:
 Bf 109E of 6(J)/TrGr.186 north of Den Helder, pilot Uffz Günther Feld, POW
 3 Bf 109E's of JG.51 near Noordijk, pilot names/fates unkn, (Bingham, 224, says "by D.XXI")
 He 111 of 7/KG.27 near Goes; pilot FW O. Fielder; crew: Uffz Willi Hettich KIA, others unkn
 He 111P of 8/KG.54 near Oostburg; pilot unkn; crew: Ogfr Emil Luis KIA, others unkn
 Do 17P of 1(F)/121 near Amsterdam, crew names/fates unknown (Bingham says "by D.XXI")
 Ju 88A-1 of 1(F)/121 crashed in Zeeuws-Vlaanderen, pilot FW K. Denner and crew fates unkn.
 He 111 (unit unkn) between Hazerswoude and Koudekerk; crew: 2 KIA and 2 POW/WIA
6. Aircraft involved in these missions were:
- Msn #1: D.21s #219, #235, #240, #242, and #244; C.10s #700, #705, #711, and #712
 Msn #2: D.21s #212, #224, #236, #240, and #242; C.10s #705, #711, #712, and #713
7. Aircraft destroyed at Haamstede on May 13th included: F.7/3m's #801 and #802;
 C.5d's #603, #618, #636, #637, #641, and #648; C.9 #662;
 FK-51s #411, #412, and #415; and FK-56s #82, #86, and #87.
8. Sadly, it is not known which G.I 1Lt P. C. Schoute and Sgt J. P. Lindner were flying when they were shot down by 1Lt Ebbighausen. Most likely, it was either #304 or #305, either of which was returned to flying status at Bergen that morning.
9. The German aircraft shot down over Holland on May 13th included:
 Bf 109E of 5/JG.26 near Numansdorp, pilot Lt Karl Borris, POW (shot down by RAF Defiant)
 Bf 110C of 5/ZG.1 near Vlissingen; pilot Hptm Erhard Küpers and Fw ErhardBehrend, KIA
 (*Luftwaffe* records show this aircraft shot down by a Blenheim over the Dutch coast)
 Ju 87B of IV(St)/LG.1 near Werkendam; pilot unknown; gunner Befr Günther Langner, KIA
 He 111 (5J+CH) of 1/KG.4 force-landed near IJsselstein; pilot and 3 crewmen POWs.
 Ju 88A-1 of 1(F)/121 crashed in Zeeuws-Vlaanderen, pilot Ofw R. Schnegotzki; crew fates unkn.

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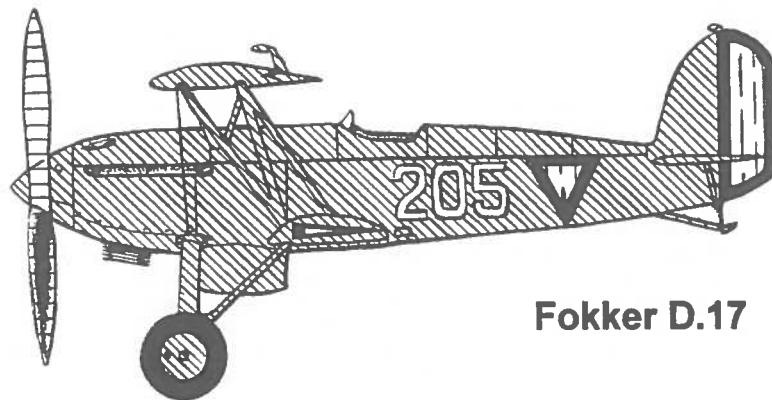
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ADDITIONAL AIRCRAFT OF MEIDAGEN



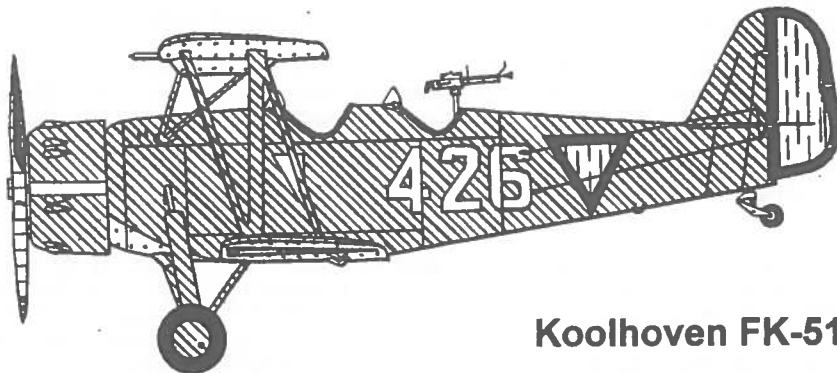
Fokker G.1 Export

A. Fokker Export G.1 #343, *4e JaVA*, Schiphol Airfield: Six Wasp-engine export versions of the G.1 were accepted by the ML in Jan-Feb, 1940, and were used as trainers for V-2.LvR, which was scheduled to form a G.1 unit in June 1st. The German invasion intervened, however, and #343—with two others—were armed, test flown, and hastily assigned to *4.JaVA*'s detachment at Schiphol. On May 14th these three—along with two Mercury-motored G.1s—were dispatched to the Grebbeberg to cover the retreating *Veldleger* units. During takeoff #343, flown by 2Lt G. Steen, was hit by #346 but still managed to get airborne and complete its mission. It was captured by the Germans at Schiphol. Source: *Air International*, Nov 1974, Vol 7/#5, pg 242.












Fokker D.17

B. Fokker D.17 #205, *Combined JaVA*, Buiksloot Airfield: One of the ten original D.17 fighters acquired in 1932-33, #205 was the sole survivor of the *Meidagen* fighting. It was one of six assigned to the *Combined JaVA* on May 11th, but due to "friendly fire" by Dutch AA and landing accidents, only three remained for the type's only operational mission—an escort and ground attack sortie to the Grebbeberg—the next day. All three landed at Soesterberg, where the other two were written off. This aircraft, after the repair of its landing gear, was returned to Schiphol where it—along with the unit's nine D.21s—was destroyed by burning on the evening of May 14th. Source: *Modelbouw in Plastic* (IPMS-NL magazine) 1991, Nr.4, pg 95.



Koolhoven FK-51

C. Koolhoven FK-51 #426, *IIIe Verkenning Groep*, Ruigenhoek Some 29 FK-51s were acquired as *lichte verkenners* ("light reconnaissance"), primarily for artillery spotting. Aircraft #426 was the only one to attempt a combat mission during the *Meidagen*. On May 10th it was sent to reconnoiter Valkenburg airfield, but once airborne the observer, 2Lt H. K. van Huizen discovered the Lewis rear gun would not work. Defenseless, pilot Sgt A. J. M. van Liempd wisely decided to return to Ruigenhoek, eventually flying the mission in C.5d #617, which was damaged by German fighters in doing so. FK-51 #426—along with the unit's C.5d's and other aircraft at Ruigenhoek—was destroyed when word of the Dutch surrender was received. Source: *Avions* magazine, #111, June 2002, page 39.

Color Key					
	LVA Khaki FS 14064		Camouflage Beige Med Hvy Sepia/ Goldenrod (Sand) FS 30257		Black/ Rubber
	LVA Blue FS 15189		Camouflage Brown Med Hvy Sepia/ Sienna Brown FS 30059		Bare Metal (Silver) FS 17178
	Dutch Insignia Orange FS 22243		Camouflage Green Sienna Brown FS 34077		Light Gray Props with red-white-blue stripes near tips
SOURCES: <u>Camouflage en Kentekens</u> , by J. H. N. Greuter, <i>et al.</i> , Bergen, NL: B.V. Bonneville, 1997, pages 41, 219, 221 <u>D.XXI in Dutch and Danish Service</u> , by Warren Eberspacher, St.Paul, MN: Phalanx Publishing Co., 1994, page 41					

Captions for the photo on the cover and on pages 125 – 128.

Photos are from the Thijs Postma collection, unless otherwise noted.

Front Cover: The second batch of FK-51 basic trainers (#11-#25) were ordered in 1937 in order to handle the increased pilot training requirement driven by the sudden and growing expansion of the LVA. These are distinguished by the straight leading edge of the vertical stabilizer and were powered by the improved 350hp Cheetah IX engine. Soon all trainer aircraft were painted LVA Blue all over. Nice helmets!

A. (Photo #001) Pre-War Dutch Postcard showing a picturesque line-up of six Fokker D.16 fighters. Originally acquired to supplement the disappointing D.16 (See Kit Review in SAFO #111, pg 101), ten were acquired in 1932-34. Assigned to the peacetime *Jachtvliegtuig Afdeling* (JaVA), nine remained on strength when the ML was mobilized in April 1939. Four of these were used to help equip the new 2.JaVA at Soesterberg. Once this unit re-equipped with D.21s, they were reassigned to the Fighter School.

B. (#002) The D.21 (here #201) was an elegant and streamlined design—the final installment of the classic Fokker fighter biplane formula made famous by the WWI D.VII. Armed with a pair of 7.9mm M-36 machine guns and powered by a 12-cylinder, 595hp Rolls Royce Kestrel IIS engine, it was capable of a maximum speed of 221mph (356 km/hr). This compared very favorably with other contemporary fighters such as the Curtiss Hawk (198mph), Hawker Fury (207mph) and Heinkel He.51 (205mph).

C. (#003) D.21 #205 taxiing in from a flight. This aircraft was one of six reassigned from the Fighter School to the *Combined JaVA* on May 11th. With two other D.17s, it was flown by Sgt B. C. Moerkoert on a combat mission the next day escorting *Je Verk Groep* C.5d's attacking German forces assaulting the Grebbeberg. The formation recovered to Soesterberg. Its landing gear was damaged and was replaced with that from another (written off) D.17 and it was returned to Buiksloot. There, on the evening of May 14th, as the sole remaining D.17, it was destroyed with the rest of the *Combined JaVA* fighters.

D. (#004) Three D.17s (#207, #210, #202) warm their engines before launch at Soesterberg. At this time (Oct 39) these aircraft equipped the fighter training section of the *Vliegschool voor Voortgezette Opleiding* ("Finishing Training School"). Note that they have been repainted LVA Khaki (dark green-brown) all over—including the prop spinner and wheel covers—and bear the orange triangle "Neutrality Markings". It is apparent that LVA Khaki had a gloss or semi-gloss finish and looks very fresh.

E. (#005) D.17 #202 ready for its pilot at Soesterberg. Unhappily, this aircraft was shot down by Dutch AA fire as it and five others overflew the naval base at Den Helder while enroute to join the *Combined JaVA* at Buiksloot. Note that the Fokker C.5d coming in over the hangars on landing

approach. Behind the D.17 is the ML's sole North American NA-27 "Yale", a fixed-gear, mixed construction predecessor to the famous AT-6/Harvard family of advanced trainers. Its serial number was #997 and it was lost to German air attacks at Texel.

F. (#006) The young pilot fastens the chin strap of his uniquely Dutch flying helmet before climbing aboard D.17 #202. With the "April Alarm" anticipating the 1940 German invasion, the Fighter School withdrew its seven D.17s to De Vliet airfield on Texel island. The sleekness of the D.17's streamlined design is readily apparent in this view.

G. (#007) The Koolhoven FK-51 was designed as a basic trainer in 1935 and the following year the LVA ordered ten. These first examples—serials #1 to #10—were powered by the 270hp Armstrong Whitworth Cheetah V radial and featured a large rounded vertical stabilizer. As was the practice of that time, they were delivered in LVA Khaki overall with LVA Blue undersides and peacetime national markings.

H. (#009) With the second batch of FK-51 basic trainers another 29 were also ordered as *lichte verkenners* ("light observation") aircraft, mainly for artillery spotting. Each *Verkenners Groep* was assigned a small squadron of four of these. Here two FK-51s (#405 and #420, probably of *Ile Verk Gp*) formate in peacetime training. The posts above the top wing of #405 support the wire antenna to the early model radio aboard. The circular wire cages beneath the wings are for carrying small grenade size anti-personnel bombs.

I. (#010) In the winter of 1939/40 another formation of FK-51s seen flying a training mission. Note the Lewis 7.9mm machine gun mounted behind the observer's seat. These two (#419 and #426) are from *Ile Verk Gp*, the only unit to launch an FK-51 into combat. See caption for FK-51 Profile Drawing for details. These two—along with the unit's C.5d's and several other aircraft—were destroyed at Ruigenhoek when word of the Dutch surrender was received.

J. (#011) Six Brand-New Export Versions of the Fokker G.I Lined up on the Ramp at Schiphol Airfield. With the delivery of the 36 G.Is for the ML, Fokker turned to completing 25 Export G.Is (and converting the original prototype to Export G.I Standard) against an order originally placed by the Spanish Republican government in 1937. These were the first six delivered, unarmed, in Jan-Feb 1940, four of which were used as trainers for the 2.LvR's *Jachtgroep*, which was scheduled to establish a fighter squadron (2-V-2.LvR) on the type on June 1st.

K. (#012) The Export G.I varied considerably from the ML's G.Is. The basic changes were driven by the fact they were powered by Pratt & Whitney Twin Wasp Junior radials—rather than the larger, more powerful Bristol Mercurys—and turned smaller props. This resulted in a smaller aircraft overall, with a stubbier nose, redesigned tails, shorter landing gear, and shorter wingspan—so this version

was normally called the "*kleine G.I*" ("small G.I"). Aircraft #343 was one of the trio of Export G.Is to fly a combat mission, strafing German positions on the Grebbeberg on May 14th, being damaged in the process.

L. (#013) Export Fokker G.I #345 Parked on the Ramp at Schiphol airfield. In this view the lower stance due to the shorter landing gear is readily apparent, especially when compared with ML G.Is, as featured in Photos J/K and M/N in SAFO #111. It is also identified by the prominent air intake (for the oil cooler) mounted above the engine nacelle. After delivery and initial use as a training aircraft, #345 was placed in open storage at Ockenburg and captured there intact by the invaders. (From Doug Dildy Collection)

M. (#014) Side View of Export Fokker G.I #345 on the Ramp at Schiphol. The Export G.Is were serials #340 - #365 and first set of six were originally delivered painted ML Camouflage Green all over, with "Neutrality Markings". Later the ML Camouflage Dark Brown and Camouflage Beige (sand) colors were added to complete the standard 3-color ML camouflage pattern. Suitable armament remained an issue—due to the adverse effect of the heavy nose battery on the CG—right up until the Nazi invasion, when these were hastily configured with four M-36 machine guns and pressed into service, flying one combat mission. (From Doug Dildy Collection)

N. (#015) Fokker S.9 #47 in French Markings. This primary trainer was one of 11 to successfully complete the evacuation of Vlissingen airfield and make it all the way across Belgium and Normandy to Caen. There it was transferred to the French air force—note the rounded edges of the French cockade extending above and below the lower wing—while the ML personnel continued on to Britain to carry on the fight. (From *Batailles Aeriennes No.9—La Campagne des Pays-Bas*, by Michel Ledet, pg 63)

O. (#016) FK-51 #421 After the Battle. This aircraft was part of *Ile Verk Gp* and is seen at its wooded dispersal at Gilze-Rijen airfield. It was—along with two C.5d's—damaged in the initial Luftwaffe air attacks, by bombers and Bf 109E's, at 0400 hours on May 10th. Four hours later the unit was ordered to evacuate this vulnerable forward base and it retired to Haamstede, leaving #421 and three other FK-51s (#409, #415, #427) behind.

P. (#017) Koolhoven FK-43 as PH-CMB. The FK-43 was a general aviation light aircraft (note the similarity of the vertical stabilizer profile to that of the early version of the FK-51 trainer). Three FK-43s were commandeered or donated to the ML during the crisis of the "Neutrality Period". PH-CMD became #960 in the ML inventory and as an auxiliary aircraft would have been painted overall LVA Blue. On May 10th it was at Ypenburg as the unit hack of *V-2.LvR*, the *Jachtgroep* of 2.LvR, and was destroyed there by the German bombing, airborne assaults, and ground fighting. (From Frits Gerdessen Collection.)

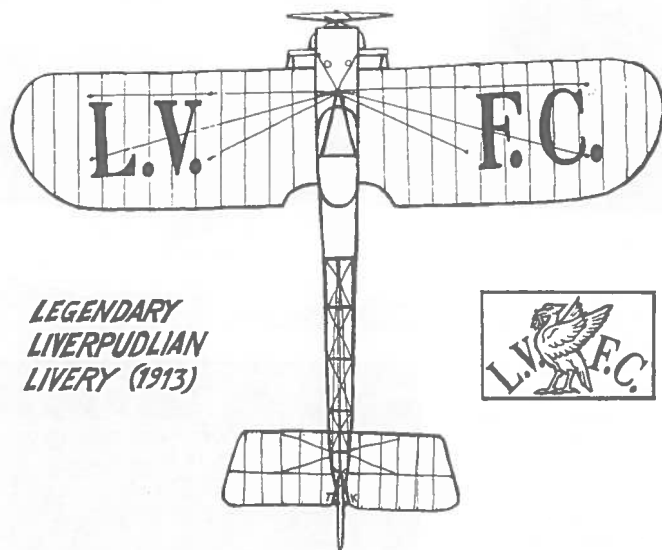
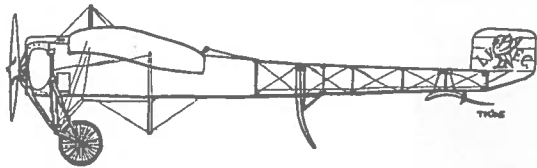
The Liverpool Air Corps

I was greatly interested in that piece about the almost Liverpool Air Corps, about which much has not been written. I do not know much about its prehistory, but I happen to know a little about the reasons for its prenatal demise.

It is a misconception that Bleriot were the aircraft of choice, it would have been Berliots. Achille Bleriot, a great grandson of the famous composer Hector Berlioz (I can't explain the difference in spelling!), had been bitten by the flying bug long before the time of the Pou-de-Ciel. After a long row of conceptual mistakes, he had reached maturity as a designer in the very early 10's of the former century.

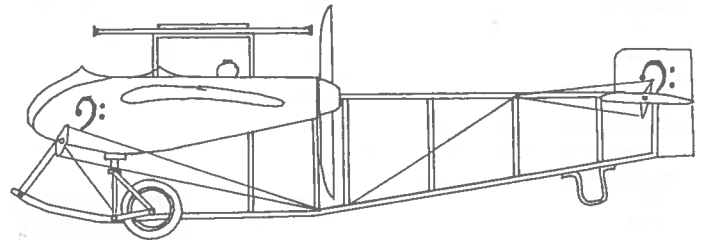
At the time in question, the Berliot XXXVII was highly regarded as a more-than-state-of-the-art aircraft offering several technical as well as tactical advantages. The type number is the same as that of a Bleriot of somewhat similar outlook.

It was a monoplane with symmetrical profiles and 100% balanced all-flying tailplane, rudder and ailerons. The engine drove a fully reversible airscrew (another first!), the main landing gear adjusted itself automatically and the pilot's seat could be swung 180° in flight (a first and last, I believe!). This gave the pilot the option of taking off and landing tail first to avoid being crushed by the heavy engine in the event of a crash. In the air, the pilot could enter a steep climb, reverse the airscrew (when the speed was low), swing his seat in the opposite direction and continue flight in the direction from where he came. This would have perplexed a pursuing enemy.



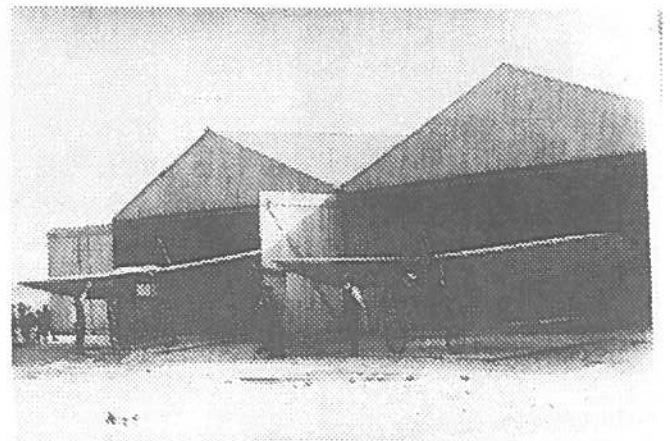
The armament was another novelty, a recoilless gun which fired a bullet in either direction at the same time allowing the pilot to defend himself against a pursuer while attacking another enemy in front at the same time. The gun is very light but the bullet consumption was of course 200% of one firing in one direction only. The enclosed illustration gives but an idea of the looks of the Berliot XXXVII and how the markings were applied after the first (unsuccessful) test flight.

As a homage to his illustrious forefather, Achille chose to put as markings F- or G-clefs at the (later) common six positions and on both sides of the rudder. His choice in each case was basically dependant on his mood after the first test flight. The Liverpooldians chose to retain the F-clef as having basically a more frightening effect on any potential enemy in addition to being more easily applied on the aircraft, not to speak of the advantages for future scale model builders. An unusual case of advance considerate thinking. Unfortunately, there are no kits available.



But the Liverpool Air Corps was not to be and that because of the inherent weaknesses of the Berliot XXXVII which proved to be too heavy for the engine available to the designer/builder. A contributing factor was that a substantial number of decision-making politicians did not prefer French music.

Klas G. Bask (SAFCH #306), 415 Alle de Cormorans, Le Capitou de l'Esterei, F-83600 Frejus, France.



Liverpool Aviation School, Waterloo
The instructor, Mr. B.G. Melly with his two machines, one a 50 hp Gnome-Bleriot, at the aerodrome 1911.

This book is devoted to the Soviet volunteer pilots who served in the Spanish Civil War with emphasis on fighter pilots. It is 430 large pages long and almost every word is of interest because it contains information based on documents from RGVA (ex-Soviet) archives. It is not, as are many other books on the subject, a book that can be quickly read because the author has evidently wanted to concentrate in it his important and original research on the subject - every page should be carefully studied by enthusiasts of the air war in Spain.

The book is organized as a day-by-day air-combat diary describing events that are often different from previously published Western sources. It also presents much information in tabular form, records, reports of pilots and other people, conversations with airmen during the war and after, tables, lists, so that is much of the material is easy to understand. This book is destined to be regarded as the best researched book on the air war in Spain 1936-1939. If you would like to order the original book, please write me at the address below. I am the author's

representative and provide the selling service. In order to increase the value of this book for enthusiasts who do not read Russian, I am offering a translation from Russian into English of this book. Anyone who would like to subscribe to the English version of the book should contact me and a working plan would be sent to you immediately. It service is not a free service but it is very inexpensive. Igor N. Gordelianow (SAFCH #1066), ul.Striyskaya, 181, kw.18, Lvovskaya obl., g.Drogobych, 82100. Ukraine. E-mail: gordelianow@yahoo.com

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#87 (pages 1389-1404) "Breguet 19A.2, B.2 y AB.2" continued story of pre-Civil War use, 4 pages including 2 photos. "Les Breguet XIX en la Guerra Civil (Aviacion nacional)" 12 pages including 19 photos, 3 color side-view drawings, and three tables. Poster Inserts: Stinson SR Reliant: Aparato con matricula civil de preguerre EC-RCB incorporade a la Aviacion Nacional; Stinson 108 Voyager (L.2-12): Aparato (96-8) perteneciente al Grupo de Estado mayor.

#88 (pages 1405-1420) "Les Breguet XIX en la Guerra Civil (Aviacion nacional)" (continued) 8 pages including 12 photos, 4 color side-view drawings, and two tables. "Les Breguet XIX en la Guerra Civil (Aviacion Militar Republicana)" 8 page including 4 photos, two color side-view drawings, and 6 tables. Poster inserts: Sikorsky S.55/H-19E (Z-1A-6): Aparato con indicativo 402-14 perteneciente a la 402 Escuadrilla de Enlace; Sikorsky S.61/SH-60B Sea hawk (HS.23.02): Helicoptero con indicativo 01-1001, perteneciente a la 10ª Escuadrilla de Aeronaves de la Armada.

#89 (pages 1421-1436) "Les Breguet XIX en la Guerra Civil (Aviacion Militar Republicana)" (continued) 16 pages including 5 photos and 7 tables. Poster inserts: Savoia S.62 (M-NSHA): Primer ejemplar adquirido por las Aeronautica Naval;

Savoia-Marchetti SM.81 (21-52): Trimotor de bombardeo perteneciente al Grupo 18-G21 de la Aviacion Nacional.

#90 (pages 1437-1452) "Les Breguet XIX en la Guerra Civil (Aviacion Militar Republicana)" (continued) 16 pages including 7 photos, 2 color side-view drawings, and 4 tables. Poster inserts: Casa-Vickers Vildebeest (T-23): Avion perteneciente a la Aviacion Republicana; Savoia-Marchetti SM.79 (28-60): Aparato perteneciente al Grupo 3-G-28 de la Aviacion Nacional.

#91 (pages 1453-1468) "Les Breguet XIX en la Guerra Civil (Aviacion Militar Republicana)" (continued) 6 pages including 4 photos, 4 color side-view drawings, scale 3-view drawing, and list of countries using the Breguet XIX. "Breguet 19 TR Type Bidon" 3 pages including 6 photos and a color side-view drawing. "El vuelo del 'Jesus del Gran Poder'" 7 pages including 11 photos, a map of its Latin America flight, and a color side-view drawing. Poster inserts: Lockheed 10E Electra (42-2): Avion personal del general Kindelan. Messerschmitt Bf 109F (7 Rojo): Aparato encuadrado en la 15 (Spanische)/JG51-3ª Escuadrilla Expedicionaria a Rusia.

#92 (pages 1469-1484) "Vuelo a Beta" 4 pages including 6 photos and a color side-view drawing. "Breguet 19 Super TR Type Superbidon" 2 pages including 2 photos and a color side-view drawing. "El vuelo del 'Cuatro Vientos'" 9 pages including 16 photos and a map of its Central America flight. "Breguet 26T" one page including one photo and

one color side-view drawing. "Breguet 460 M5 Vultur" one page including 2 photos. Poster inserts: Avions Marcel Dassault Mirage F-1EE (V.14-57): Aparato perteneciente al Ala de Caza nº 14 (Los Llanos). McDonnell Douglas TAV-8A Harrier: Biplaza con indicativo 01-807 perteneciente a la 8ª Escuadrilla de Aeronaves de la Armada.

#93 (pages 1485-1500) "Breguet 460 M5 Vultur" (continued) 6 pages including 6 photos and a color side-view drawing. "Breguet 470 Fulgur" 3 pages including 3 photos, a color side-view drawing, and a scale 3-view drawing. "Bristol Boxkite" 2 pages including 2 photos and a color side-view drawing. "Bristol Prier" 3 pages including 3 photos and a color side-view drawing. "Bristol F.2B Fighter" 2 pages including 5 photos. Poster inserts: De Havilland D.H.9A: Avion numero 68 del Servicio de la Aeronautica Militar. Lohner Pfeilflieger: Avion encuadrado en la Aeronautica Militar.

#94 (pages 1501-1516) "Bristol F.2B Fighter" (continued) 16 pages including 22 photos, 6 color side-view drawings, a 2-page color 3-view drawing, and a table listing the history of all Spanish Bristol Fighter. Poster inserts: De Havilland Canada DHC-4A Caribou (T.9-18): Aparato perteneciente al Ala de Transporte nº 35 (Getafe). (CASA) Messerschmitt-Blohm-Blohm Bo 105CB (HU.15-87): Helicoptero con indicativo 09-115 perteneciente a la Agrupacion de Helicopteros de la Guardia Civil.

Aviation History Colouring Book

Ian K. Baker, 31A Mercer St., Queenscliff, VIC 3225, Australia. Obtainable in USA from M&M Models and in Europe from Mushroom Model Publications and Ian Allan Bookshop.

#54 Questions & Answers & Questions (48 pages) Again, let's let Ian have the first words: "Many modellers, illustrators and those interested in aircraft colour schemes would already be very aware that the study of this aspect of aviation history can turn up lots of questions but not always the answers. Some answers may be known only to a few. Some questions can only have conjectural answers, whilst other's remain fascinating teasers with no certain answers at all. In this booklet there is assembled a considerable body of material, some charming old aircraft, a couple of interesting old documents and, of course, the questions also with some answers, some diverse opinions and contradictions, some

doubts and dilemmas. There are many detailed drawings, colour notes, and several useful photos." "The First RAF Fortresses" 7 pages including 6 photos and top- and port-view drawings. "Canada's Goblins" 5 pages including one photo and top-, bottom-, port-, and starboard-view drawings. "Antarctic Moth, 1935" one page including 3 photos. "Un-used RAAF Camouflage Scheme for Beaufighter" 3 pages including top-, port-, and starboard-view drawings. "Another RAAF Kingfisher Camouflage" 4 pages including 5 photos and top-, port-, and starboard-view drawings. "Earliest Japanese Civil Aircraft Registrations" one page. "A6N Zero & ame-iro" one page. "Japanese Wartime Bomb Colours" one page including one photo. "Camouflage of Enemy Aircraft" one-page reproduction of a December 1942 RAAF document. "Clearing the Haze a Little" one page including one photo (RAAF P-38). "Interesting Liberator Colours

pt 2" 3 pages including a drawing of 'Glamours' nose art. "The Beautiful Northrop N3PB" 5 pages including 3 photos and top- and side-views of Norwegian aircraft in Norwegian and in RAF colors. "French Helldiver in Limbo" 7 pages including 3 photos and top- and side-view of the biplane in French markings and of an RAF Cleveland as well as 3 top-view drawings showing the variations in the camouflage carried by the French aircraft in Martinique. "Book Briefs" one page. "Concerning Fading" one page explaining why Ian does "not think (he is) brave or foolish enough to venture into specify, with actual colour chips, the vagaries of paint weathering. There are far too many literal-minded people around ready to paint-by-numbers instead of thinking things through for themselves." Ian Baker's "Colouring Books" are a lot of fun, and they do start you thinking about things you thought were well known. Try one. You'll like it

This kit is produced in the now familiar Broplan style: All the major components come vacuumformed on four sheets of white styrene (one 115 mm by 225 mm and three 58 mm by 225 mm). These parts are sharply molded with incised panel lines and restrained fabric representation. Both wings come molded full span so the proper dihedral and, more importantly, the tricky gull center section of the lower wing are all determined for you. A pair of small (90 mm by 90 mm and 60 mm by 60 mm) injection-molded sprue provide all the small parts included those for the nine-panel interior of the pilot's cockpit (strangely, there are no details for the rear cockpit) and 6 parts for the radial 9-cylinder Pegasus engine. Also included among the injection-molded parts are the wing and landing-gear struts as well as the many of small parts. There is a small sheet of clear plastic from which to cut the windshield using the template provided on the instruction sheet. A small (40 mm by 90 mm) decal sheet provides four Finnish national insignia and the serials for four Ripons (RI-153, RI-156, RI-137, and RI-159).

the instruction sheet is a multi-view drawing of RI-156 showing the Continuation War camouflage of Olive Green/Black upper surfaces, Light Blue undersurfaces and Yellow Eastern Front markings. The FS595 equivalents of the camouflage colors are given as FS34096, FS37038, and FS35414 respectively. For the modeler looking for a less challenging paint scheme, the Finnish Ripons served in the Winter War in a finish of overall silver dope (or light gray – clarification from our Finnish readers would be appreciated.).

Blackburn (VL R.29) Ripon IIF (on floats). 1/72-scale, vacuform kit with decals and injection-molded parts. Broplan MS-95. Janusz Brozek, ul. Pilotow 10G/33. 90-460 Gdansk, Poland.

If there is anything more attractive than a Ripon on wheels – it's a Ripon on floats. This kit is identical to that described above except for the addition of a fifth sheet of styrene for the floats and the replacement of the small injection-molded sprue of undercarriage parts with a sprue of float struts. The decals sheet is identical to that included with the kit of the wheeled version and the instruction sheet shows the color scheme for RI-153.

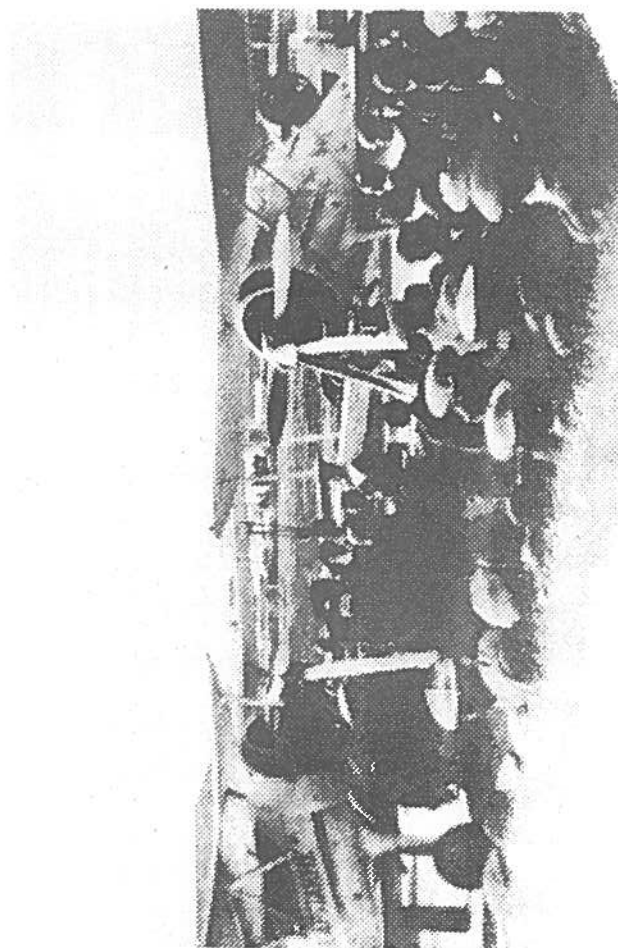
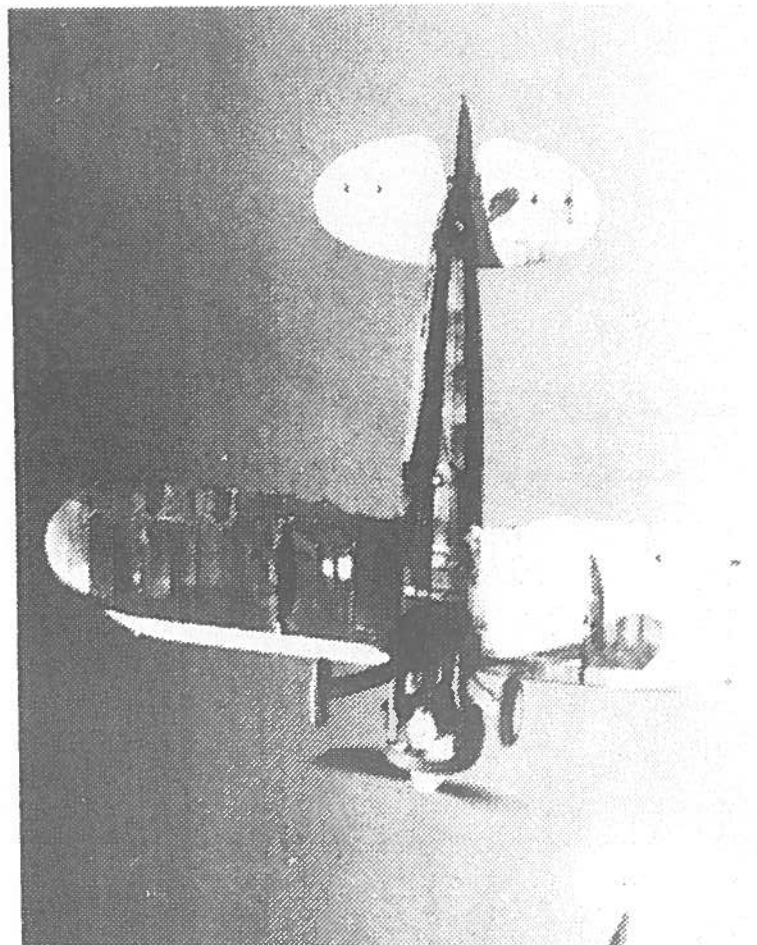
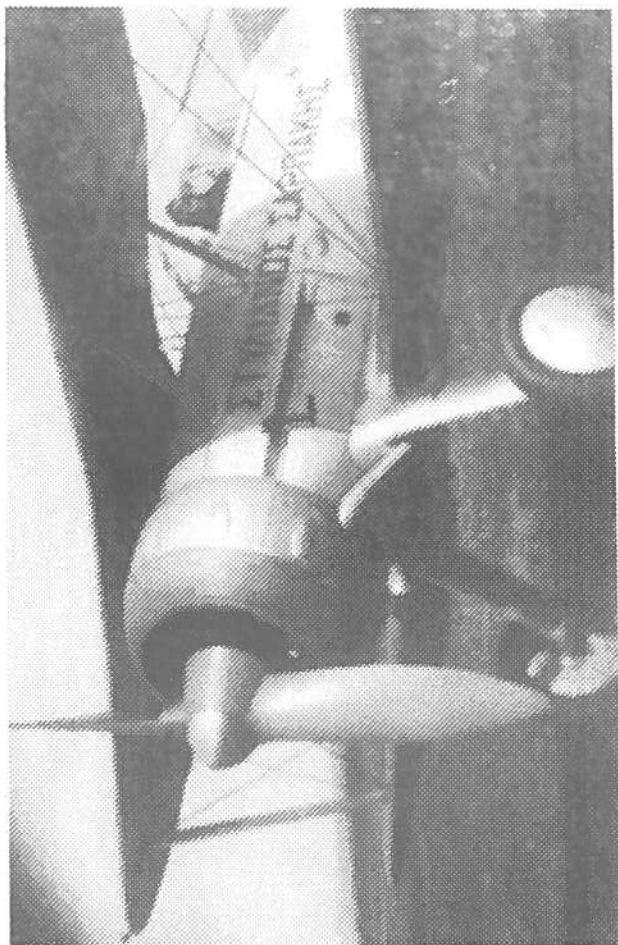
The Broplan kit of the Ripon on floats would make an attractive companion to collection of models consisting of a Norwegian DT-2, a Swedish He 115, a Greek Do 22, a Dutch Fokker T-VIII, and a French Latecoere 298.

Ilmailuhtoriallinen Lehti, issues 4/2001 and 1-3/2002. *Suomen Ilmavoimien Lentokoneet 1939-72* has a couple of photo and a 3-view drawing of a camouflaged Ripon. A couple of photos are also to be found in Squadron/Signal Publications *Finnish Air Force*. For a history of the Blackburn Ripon in RAF service see *Blackburn Aircraft since 1909* by A.J. Jackson.

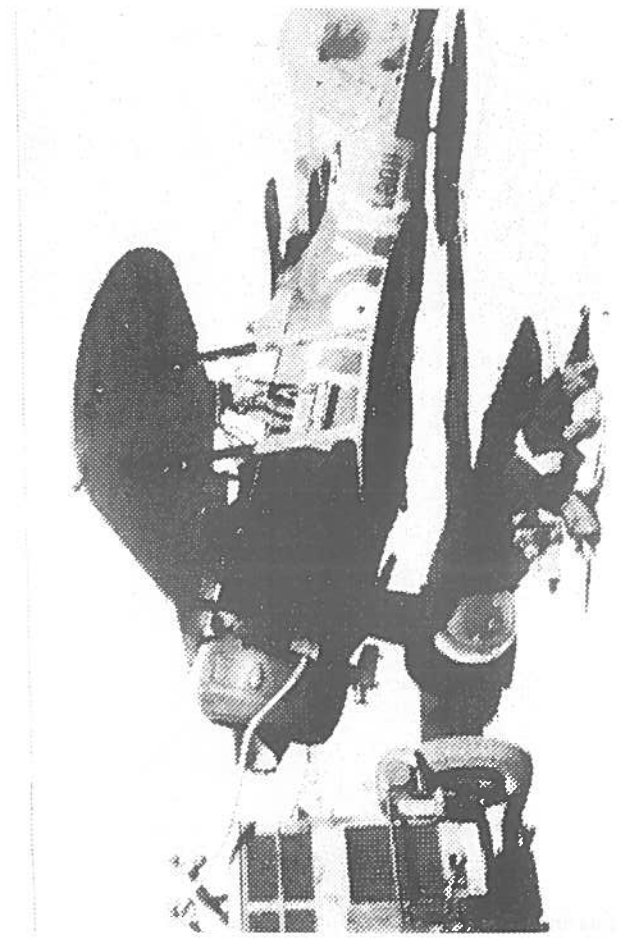
[Ed: The kits Janusz Brozek plans to do next are most exciting. He is currently putting the finishing touches on a 1/72-scale Heinkel HD 24 (Swedish Sk 4A) on wheels. The Sk4 float version should come out a month or two later. Also planned for this year are Bulgarian, Romanian, and Turkish versions of the P-24A/C. But, best news of all is Janusz's comments, "Thanks you for the January 2005 issue of SAFO. I was glad to find the next part of article about Dutch Air Army in Combat, particularly information and photos of Fokker C.V biplanes. I plan to produce kits of this airplane in several versions as short-run injection molded plastic kits. As the first, I plan the Fokker C.V.E as used in Denmark and Finland." Long-time SAFO readers will remember that many years ago we ran a survey to find the 1/72-scale injection-molded kit most wanted by the small-air-force modeler. The Fokker CV came out on top. So it looks as if our long wait may soon be over.]

Beech Super King Air 200, 1/72-scale cast resin kit with vacuformed parts and decals for three aircraft. MAI #015. \$40.00 US or \$45.00 elsewhere. Payment by check or money order in US\$ drawn on a US bank. Order from: Model-Aire International, 38 Prince Royal Passage, Corte Madera, CA 94925, USA>

A line drawing of a German aircraft fuselage section, showing the registration 'RH-53' and a swastika symbol. The drawing is a side profile of a fuselage segment, likely from a bomber or transport aircraft. It features a large, rounded nose section on the left, a central fuselage with a registration 'RH-53' and a swastika symbol, and a tail section on the right. The drawing is a simple line art illustration, typical of a technical sketch or a historical document reproduction.



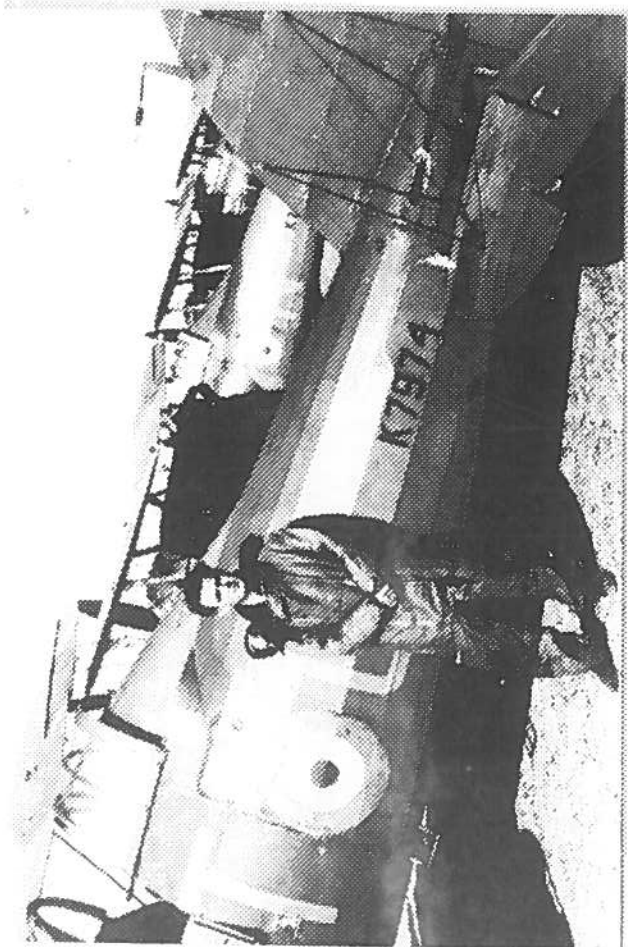
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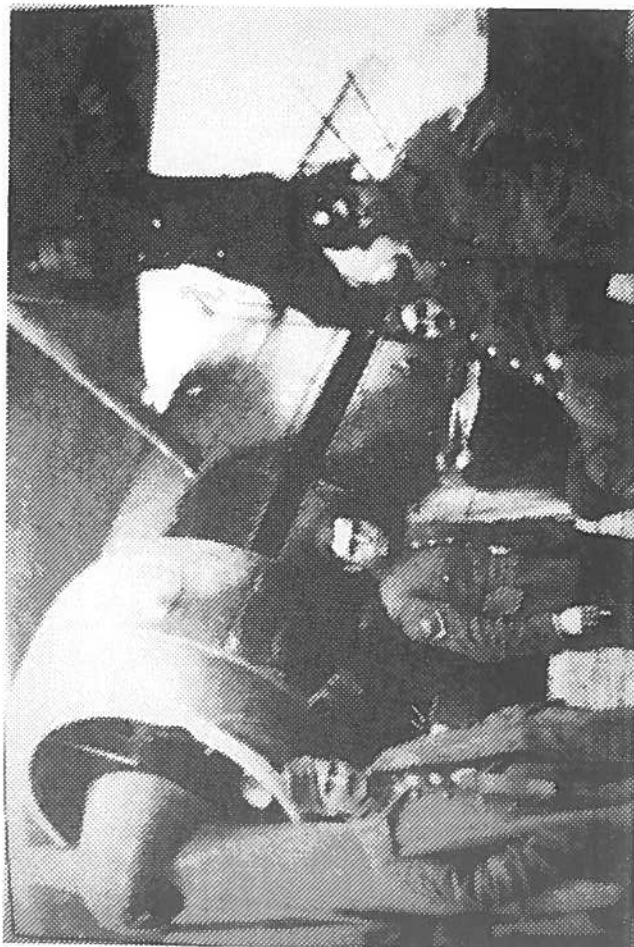
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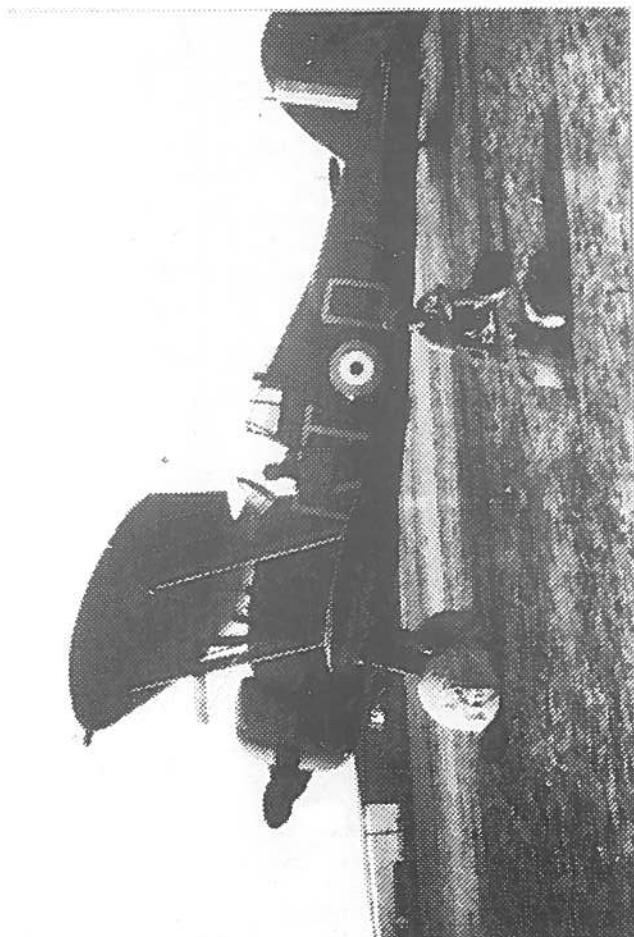
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